

ANNUAL CLIMATOLOGICAL REPORT 2016



**METEOROLOGICAL
SERVICE
SINGAPORE**
Centre for Climate Research Singapore

Table of Contents

1. Introduction	1
2. Climate of Singapore.....	1
3. Meteorological Stations	2
3.1. Upper Air Observatory	3
3.2. Manned Meteorological Stations.....	3
3.3. Automatic Weather Stations	4
4. Monthly Records of Changi Climate Station	8
5. Daily Records of Changi Climate Station.....	14
6. Isohyets	21
7. Monthly Observation of Weather Parameters.....	26
8. Weather Parameter Observation by Months.....	35
8.1. Jan to Apr	36
8.2. May to Aug	41
8.3. Sep to Dec.....	46
9. Weather Statistics for Manned Meteorological Station	51
9.1. Monthly Observation.....	52
9.2. Hourly Observation	58
10. Weather Statistics for Automatic Weather Station	69
10.1. Monthly Observation.....	70
10.2. Hourly Observation	89
11. Wind Rose	126
11.1. Annual Wind Rose of All Stations	127
11.2. Monthly Wind Rose of Changi Climate Station.....	132
12. Upper Air Data	135
13. Soil Data	144
Annex 1 Instruments of the Manned Meteorological Station.....	146
Annex 2 Instruments of the Manual Rainfall Station	148
Annex 3 Instruments of the Automatic Weather Station	151

1. Introduction

The annual climatological report of the Meteorological Service Singapore (MSS) contains climate statistics for 57 automatic weather stations (AWSs), 5 manned meteorological stations and 1 upper air observatory (UAO). Among these AWSs island-wide, there are 40 rainfall-only stations and 18 full-stations, recording rainfall, temperature, relative humidity, wind and pressure.

The meteorological station that is located in the aerodrome of the Changi International Airport also serves as the climate station for Singapore. According to World Meteorological Organization guidelines, a climate station monitors the climate over a long term period to provide data that enables detection of climate change signals at the national level. It should minimally have 30 years of rainfall and minimum/maximum temperature data and be located relatively far from large urban centres. Changi climate station meets these requirements with 33 years of meteorological records spanning 1984 to 2016.

Singapore's climate station has been located at 8 different sites (twice to Kallang) in the past 140 years.(see Table 1). Some of these stations have been decommissioned at various points in the past due to changes of local land use in the vicinity of the site.

	Period of service	Location
1	Jan 1869 – Dec 1874	Convict Prison (Outram)
2	Jan 1875 – Dec 1928	Kandang Kerbau Hospital
3	Jan 1929 – May 1934	Mount Faber
4	Jun 1934 – Dec 1941	Kallang
5	Jan 1942 – Dec 1947	Botanic Gardens
6	Jan 1948 – Aug 1955	Kallang
7	Sep 1955 – Dec 1983	Paya Lebar
8	Jan 1984 – present	Changi

Table 1: Period of service and the location of the Climate Station of Singapore

Prior to the installing of the AWSs, MSS had been operating 30 manual rainfall gauges with some dating back as early as 1960s, see Annex 2. With the completion of the AWSs in 2011, these manual instruments have all been replaced with electronic tipping bucket rain gauges.

2. Climate of Singapore

In general, the climate of Singapore is relatively uniform throughout the year and large variations in seasonal weather do not occur. The main features of Singapore's climate are uniform temperature, high humidity and abundant rainfall throughout the year due to maritime influence and the island's close proximity to the Equator.

The diurnal temperature variation is small, with highs of 31°C to 33°C during the day and lows of 23°C to 25°C during the night. Based on climate station records from 1929, the highest temperature observed is 36.0°C, recorded in 1998 and the lowest is 19.4°C, recorded in 1934.

The relative humidity is high all year round and varies daily from more than 90% in the morning just before sunrise and falling to around 60% in the afternoon on days when there is no rain. Relative humidity reaches 100% frequently during periods of rain. The average annual relative humidity is 84% and the lowest relative humidity observed is 33%, recorded in 1966.

Although there are seasonal variations in the amount of rainfall, there are no distinct wet or dry seasons as rain falls every month of the year, giving a long term annual average rainfall of 2,329 mm. Based on climate station records from 1869, the maximum monthly rainfall is 818.6 mm, recorded in Jan 1893 and the minimum is 0.2 mm recorded in Feb 2014. The highest rainfall recorded in a day is 512.4 mm, recorded in Dec 1978.

Monsoon seasons are defined by the prevailing winds dominant at the time of the year. The two main seasons are the Northeast Monsoon which lasts from Dec to Mar and the Southwest Monsoon from Jun to Sep. The Northeast Monsoon season is wetter and accounts for about half of the annual rainfall while the Southwest Monsoon season is relatively drier and accounts for about a third.

The Northeast Monsoon season can be divided into a wet and a dry phase. The wet phase of the Northeast Monsoon usually occurs in Dec and Jan while the later part of the season is in the dry phase where days are generally fair and occasionally windy with little or no rain. The Northeast Monsoon winds are generally cooler and constant in direction; and spells of wet weather associated with surges in the monsoon flow may persist for several days at a time. The wet spells are more frequent during the first two months of the northeast monsoon season. Dry spells occur during the second half of the northeast monsoon season.

The main feature of the Southwest Monsoon season is the incidence of morning squalls which develop over Sumatra and move eastwards towards Singapore. These squalls can bring gusts which are occasionally strong, and are often accompanied by heavy rain and thunder with associated drops in temperature. More intense features of the storm seldom last for more than 1 hour. Sumatra squalls occur on an average of 3 to 4 times a month throughout the season.

During the Inter-Monsoon periods of Apr to May and Oct to Nov, when the winds are generally light and variable in direction, sea breeze induced thunderstorms are common. The sea breeze carries humidity inland and mixes with the rising warm land air and, in unstable conditions, form rain clouds in the afternoon. In the Inter-Monsoon periods, afternoon and evening thunderstorms and convective showers are thus more frequent.

3. Meteorological Stations

MSS currently operates 1 upper air station, 5 manned meteorological stations, and 57 automatic weather stations. The locations of these stations are shown in Figure 1.

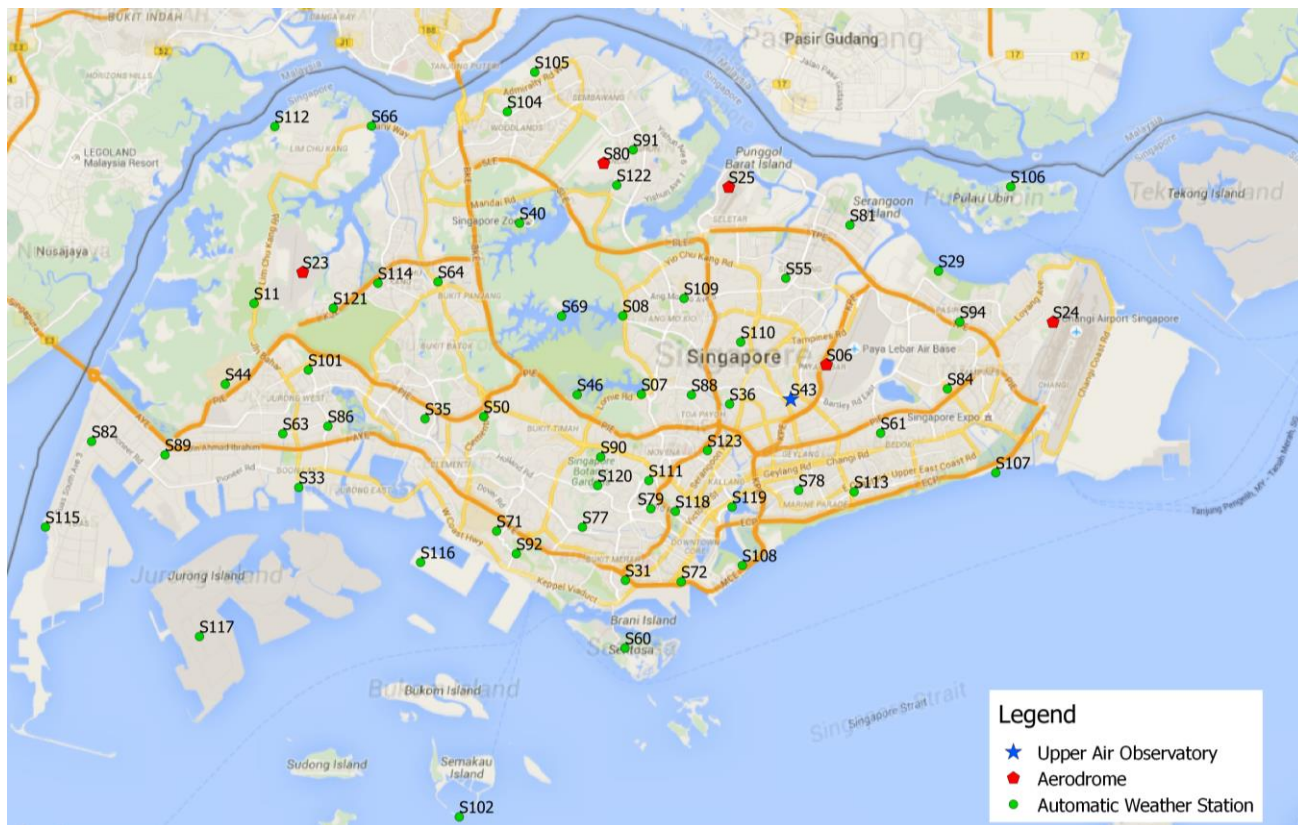


Figure 1: Locations of UAO, Manned Meteorological Stations and AWSs

3.1. Upper Air Observatory

The UAO, which has been operational since the 1950s, gathers meteorological observations of the atmosphere that are essential for weather monitoring and forecasting. It is part of a global network of about 1,300 upper-air stations world-wide.

Twice daily measurements are carried out at the UAO through the release of balloon-borne meteorological sensors which measure temperature, humidity, wind and pressure up to heights of 30 km. The upper air station is equipped with a sounding system and an automated sliding hatch in the roof enabling the weather balloon to be released from within the observatory. Helium gas is used to ensure safety in the balloon-filling operations.

In addition to the twice daily soundings using radiosondes, vertical profile measurements of ozone concentration are carried out once a month. This is done through attaching an ozonesonde together with the radiosonde to the weather balloon.

3.2. Manned Meteorological Stations

Since 1984, the meteorological station serving the Changi International Airport has been designated as the climate station of Singapore. The locations of the other 4 other manned meteorological stations are at Paya Lebar, Tengah, Seletar, and Sembawang.

The Changi station operates 24 hours a day, while the other 4 meteorological stations perform manual observations only from 5 am to 11 pm. The locations of these stations, given in decimal degree, are listed in Table 2, and the details of their instruments and starting operational dates are given in Table 3. A more detailed listing of the instruments can be found in the Annex 1.

ID	Station	Position		Elevation above mean sea-level (m)
		Lat. (N)	Long. (E)	
24	Changi Climate Station	1.3678	103.9826	15
06	Paya Lebar Meteorological Station	1.3524	103.9007	34
23	Tengah Meteorological Station	1.3858	103.7114	17
25	Seletar Meteorological Station	1.4166	103.8654	17
80	Sembawang Meteorological Station	1.4252	103.8202	26

Table 2: Locations of the manned stations

ID	Station	Instruments							Operational Date
		Hellmann Rain Gauge	Thermometer	Hygrometer	Barometer	Sunshine Recorder	Soil Thermometer	Evaporation Tank	
24	Changi Climate Station	1	1	1	1	1	1	1	01/01/1972
06	Paya Lebar Meteorological Station	1	1	1	1				01/08/1955
23	Tengah Meteorological Station	1	1	1	1				01/01/1950
25	Seletar Meteorological Station	1	1	1	1				01/04/1970
80	Sembawang Meteorological Station	1	1	1	1				01/04/1986

Table 3: Types and numbers of instruments at the manned stations

3.3. Automatic Weather Stations

The network of 57 automatic weather stations, are distributed across the island to measure rain, temperature, relative humidity, wind and pressure. All these measured meteorological readings are transmitted in real time to the Central Forecast Office located at the terminal building of the Changi International Airport. The locations of the AWSs are given in Table 5, and the instruments and operational start dates are listed in Table 6.

ID	Station	Position		Elevation above mean sea-level (m)
		Lat. (N)	Long. (E)	
07	Macritchie Reservoir	1.3417	103.8338	25
08	Lower Peirce Reservoir	1.3701	103.8271	9
11	Choa Chu Kang (West)	1.3746	103.6938	22
24	Changi Climate Station	1.3678	103.9826	15
29	Pasir Ris (West)	1.3863	103.9412	10
31	Kampong Bahru	1.2745	103.8280	35
33	Jurong Pier	1.3081	103.7100	6
35	Ulu Pandan	1.3329	103.7556	13
36	Serangoon	1.3382	103.8657	9
40	Mandai	1.4036	103.7898	38
43	Tai Seng	1.3399	103.8878	36
44	Jurong (West)	1.3455	103.6806	84

ID	Station	Position		Elevation above mean sea-level (m)
		Lat. (N)	Long. (E)	
46	Upper Thomson	1.3416	103.8106	34
50	Clementi	1.3337	103.7768	69
55	Buangkok	1.3837	103.8860	29
60	Sentosa Island	1.2500	103.8279	37
61	Chai Chee	1.3277	103.9203	24
63	Boon Lay (West)	1.3275	103.7042	11
64	Bukit Panjang	1.3824	103.7603	32
66	Kranji Reservoir	1.4387	103.7363	9
69	Upper Peirce Reservoir	1.3700	103.8050	45
71	Kent Ridge	1.2923	103.7815	72
77	Queenstown	1.2937	103.8125	24
78	Tanjong Katong	1.3070	103.8907	6
79	Somerset (Road)	1.3004	103.8372	67
81	Punggol	1.4029	103.9092	25
82	Tuas West	1.3247	103.6351	45
84	Simei	1.3437	103.9444	19
86	Boon Lay (East)	1.3302	103.7205	42
88	Toa Payoh	1.3415	103.8519	29
89	Tuas	1.3199	103.6616	25
90	Bukit Timah	1.3191	103.8191	21
91	Yishun	1.4301	103.8308	43
92	Buona Vista	1.2841	103.7886	38
94	Pasir Ris (Central)	1.3679	103.9489	23
101	Jurong (North)	1.3505	103.7134	18
102	Semakau Island	1.1890	103.7680	6
104	Admiralty	1.4439	103.7854	27
105	Admiralty West	1.4582	103.7953	28
106	Pulau Ubin	1.4168	103.9673	27
107	East Coast Parkway	1.3134	103.9619	9
108	Marina Barrage	1.2799	103.8703	15
109	Ang Mo Kio	1.3764	103.8492	53
110	Serangoon North	1.3606	103.8697	57
111	Newton	1.3106	103.8365	115
112	Lim Chu Kang	1.4385	103.7013	6
113	Marine Parade	1.3065	103.9107	25
114	Choa Chu Kang (Central)	1.3819	103.7386	25
115	Tuas South	1.2938	103.6184	6
116	Pasir Panjang	1.2810	103.7540	26
117	Jurong Island	1.2542	103.6741	22
118	Dhoby Ghaut	1.2994	103.8461	21
119	Nicoll Highway	1.3011	103.8666	26
120	Botanic Garden	1.3087	103.8180	39
121	Choa Chu Kang (South)	1.3729	103.7224	38
122	Khatib	1.4173	103.8249	26
123	Whampoa	1.3214	103.8577	31

Table 4: Locations of the AWSs

ID	Station	Wind Sensor (10m)	Wind Sensor (5m)	Wind Sensor (2m)	Tipping Bucket	Thermometer	Hygrometer	Barometer	Solar Radiation	Broadband UV	Total UV	Soil Thermometer	Ceilmeter	Visibility Sensor	Evaporation Tank	Doppler Rain sensor	Operational Date
07	Macritchie Reservoir				2												12/02/2009
08	Lower Peirce Reservoir				2												29/01/2010
11	Choa Chu Kang (West)				2												05/03/2009
24	Changi Climate Station	1			1	1	1	1	1	1	1	1	1	1	1	1	28/05/2009
29	Pasir Ris (West)				2												05/05/2010
31	Kampong Bahru				2												28/04/2010
33	Jurong Pier				2												03/02/2010
35	Ulu Pandan				2												27/02/2009
36	Serangoon				2												09/07/2009
40	Mandai				2												11/12/2009
43	Tai Seng		1		2	1	1	1									28/04/2011
44	Jurong (West)			1	2	1	1										17/03/2009
46	Upper Thomson				2												21/01/2010
50	Clementi			1	2	1	1										14/04/2010
55	Buangkok				2												06/11/2008
60	Sentosa Island		1		2	1	1	1	1								04/03/2010
61	Chai Chee				2												15/12/2009
63	Boon Lay (West)				2												24/03/2009
64	Bukit Panjang				2												07/12/2009
66	Kranji Reservoir				2												23/10/2008
69	Upper Peirce Reservoir				2												04/02/2010
71	Kent Ridge				2												24/03/2009
77	Queenstown				2												23/11/2009
78	Tanjong Katong				2												24/09/2008
79	Somerset (Road)				1												24/03/2011
81	Punggol				2												04/06/2009
82	Tuas West				2												03/03/2009
84	Simei				2												15/06/2009
86	Boon Lay (East)	1			2	1	1	1									30/11/2009
88	Toa Payoh				2												16/03/2010
89	Tuas				2												02/10/2008
90	Bukit Timah				2												03/03/2009
91	Yishun				2												19/05/2009
92	Buona Vista				2												02/03/2009
94	Pasir Ris (Central)				2												18/03/2010
101	Jurong (North)				2												10/09/2008
102	Semakau Island	1			2	1	1	1	1								31/10/2008
104	Admiralty		1		2	1	1										16/10/2008
105	Admiralty West				2												11/09/2008
106	Pulau Ubin	1			2	1	1	1									05/01/2009
107	East Coast Parkway			1	2	1	1	1									10/06/2009
108	Marina Barrage		1		2	1	1	1									08/07/2010
109	Ang Mo Kio			1	2	1	1	1									02/09/2009
110	Serangoon North				2												03/06/2009
111	Newton		1		2	1	1										15/10/2009

ID	Station	Wind Sensor (10m)	Wind Sensor (5m)	Wind Sensor (2m)	Tipping Bucket	Thermometer	Hygrometer	Barometer	Solar Radiation	Broadband UV	Total UV	Soil Thermometer	Ceilmeter	Visibility Sensor	Evaporation Tank	Doppler Rain sensor	Operational Date
112	Lim Chu Kang				2												29/01/2010
113	Marine Parade				2												13/05/2009
114	Choa Chu Kang (Central)				2												15/12/2009
115	Tuas South	1			2	1	1	1									30/03/2011
116	Pasir Panjang			1	2	1	1	1									24/02/2010
117	Jurong Island			1	2	1	1	1									05/08/2011
118	Dhoby Ghaut				2												03/09/2010
119	Nicoll Highway				2												17/09/2010
120	Botanic Garden				2												23/09/2010
121	Choa Chu Kang (South)		1		2	1	1	1	1								08/03/2011
122	Khatib	1			2	1	1	1	1	1							11/10/2010
123	Whampoa				2												09/09/2011

Table 5: Types and numbers of instruments at the AWSs

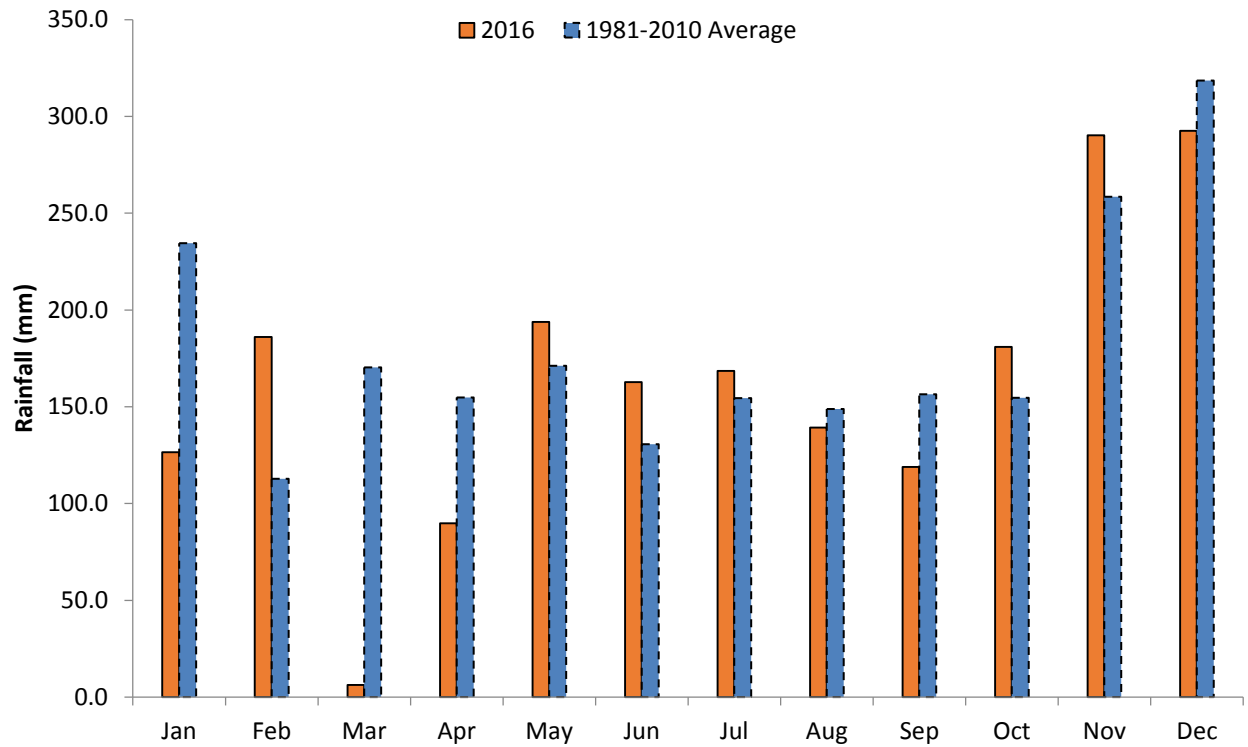
4. Monthly Records of Changi Climate Station

Climate Statistics of Changi Climate Station for 2016

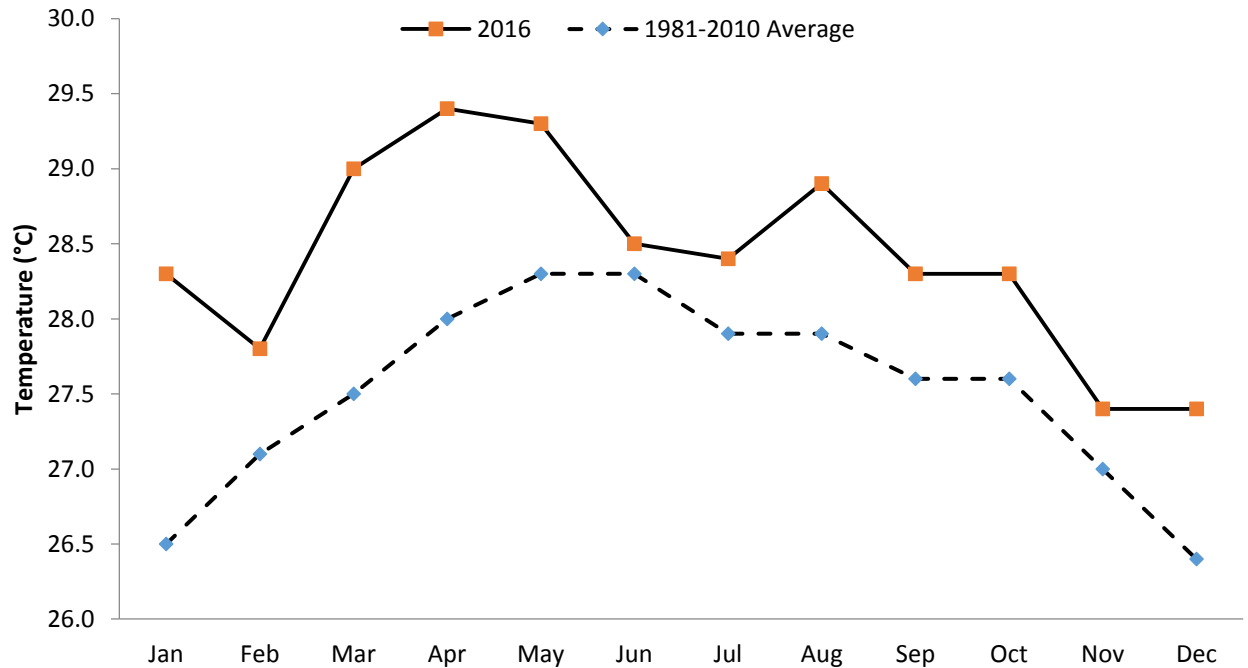
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	Monthly Total	2016	126.6	186.0	6.2	89.8	193.8	162.8	168.6	139.2	118.9	181.0	290.2	292.6
		1981-2010 Average	234.6	112.8	170.3	154.8	171.2	130.7	154.4	148.9	156.5	154.6	258.5	318.6
	Raindays	2016	15	10	6	14	12	13	20	15	15	16	20	23
		1981-2010 Average	13	8	13	14	14	12	14	14	13	15	18	18
Temperature (°C)	Monthly Average of Daily Maximum ¹	2016	31.8	31.1	33.1	33.4	33.0	31.6	31.7	31.8	32.0	32.1	30.7	31.6
		1981-2010 Average	30.4	31.7	32.0	32.3	32.2	32.0	31.3	31.4	31.4	31.7	31.1	30.2
	Monthly Average of Daily Minimum ²	2016	26.0	25.6	26.6	26.7	26.5	26.1	25.8	26.2	25.1	25.2	24.9	24.7
		1981-2010 Average	23.9	24.3	24.6	25.0	25.4	25.4	25.0	25.0	24.8	24.7	24.3	24.0
	Monthly 24-hr Average	2016	28.3	27.8	29.0	29.4	29.3	28.5	28.4	28.9	28.3	28.3	27.4	27.4
		1981-2010 Average	26.5	27.1	27.5	28.0	28.3	28.3	27.9	27.9	27.6	27.6	27.0	26.4
Relative Humidity (%)	Monthly Average of Daily Maximum	2016	92	90	88	90	92	91	90	89	90	89	92	91
		1981-2010 Average	95	95	96	97	96	95	95	94	96	96	97	96
	Monthly Average of Daily Minimum	2016	63	64	57	57	59	62	61	58	55	54	58	49
		1981-2010 Average	67	62	63	63	65	64	65	64	64	63	66	69
	Monthly 24-hr Average	2016	80	79	75	76	77	78	77	74	74	72	78	73
		1981-2010 Average	84	82	83	84	84	82	82	82	83	83	86	87
Wind (m/s)	Monthly 24-hr Average	2016	2.8	3.3	3.2	2.3	2.1	2.0	2.2	2.3	1.9	1.8	1.7	2.0
		1981-2010 Average	2.9	3.0	2.3	1.6	1.7	2.0	2.4	2.5	2.0	1.6	1.5	2.2

¹ Average of all daily maximum values over a month² Average of all daily minimum values over a month

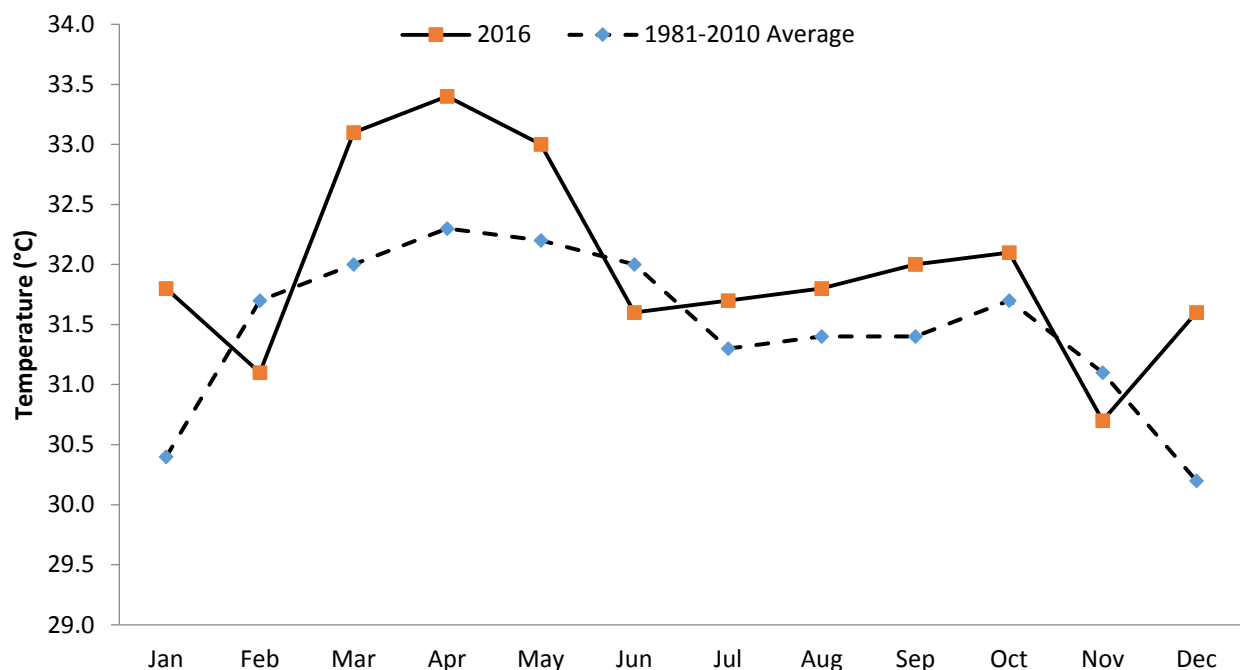
Rainfall Amount at Changi Climate Station



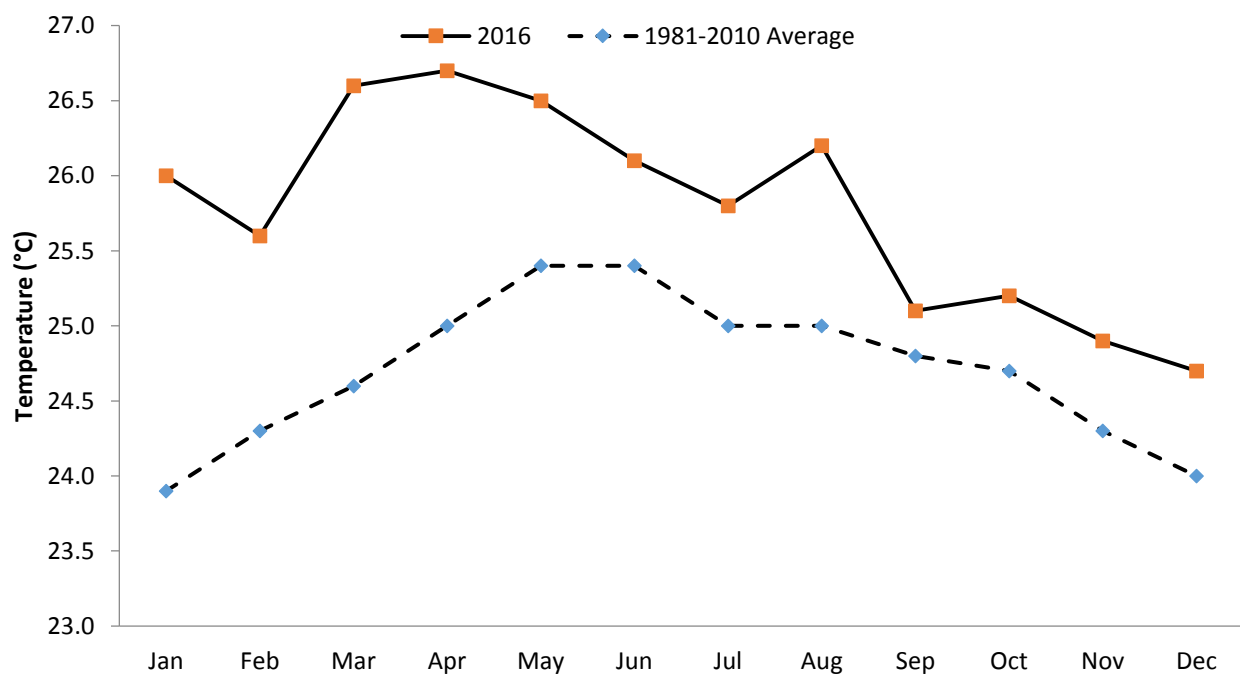
Monthly Average Temperature at Changi Climate Station



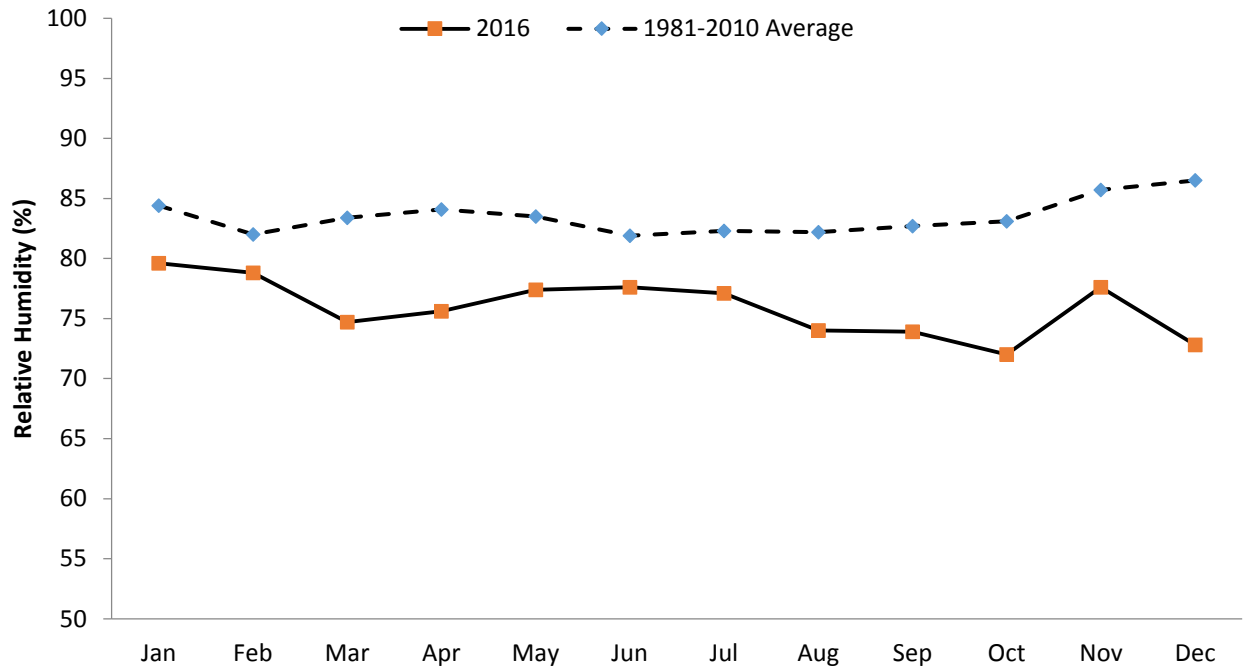
Monthly Average of Daily Maximum Temperature at Changi Climate Station



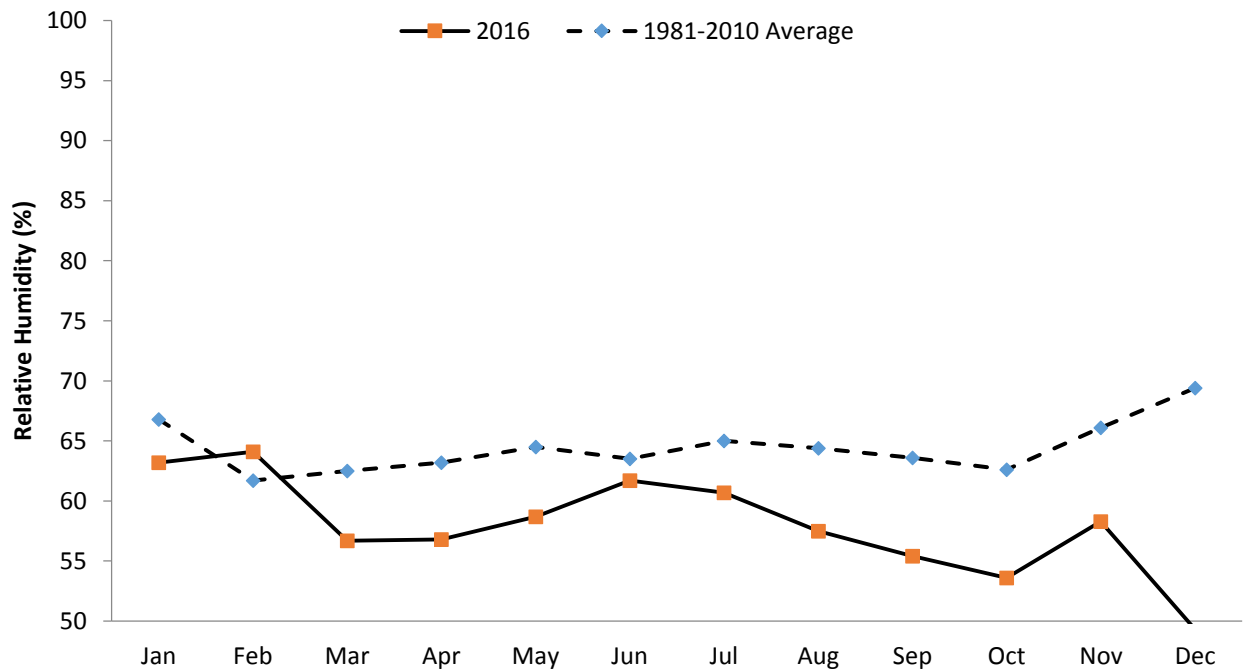
Monthly Average of Daily Minimum Temperature at Changi Climate Station



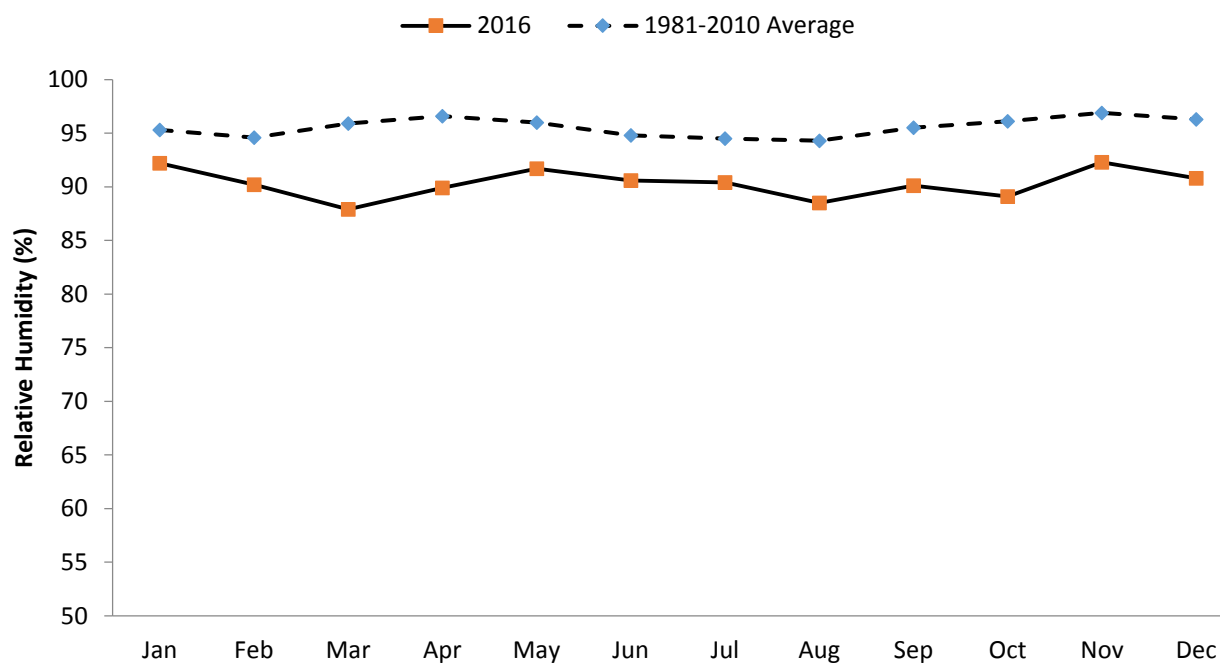
Monthly Average Relative Humidity at Changi Climate Station



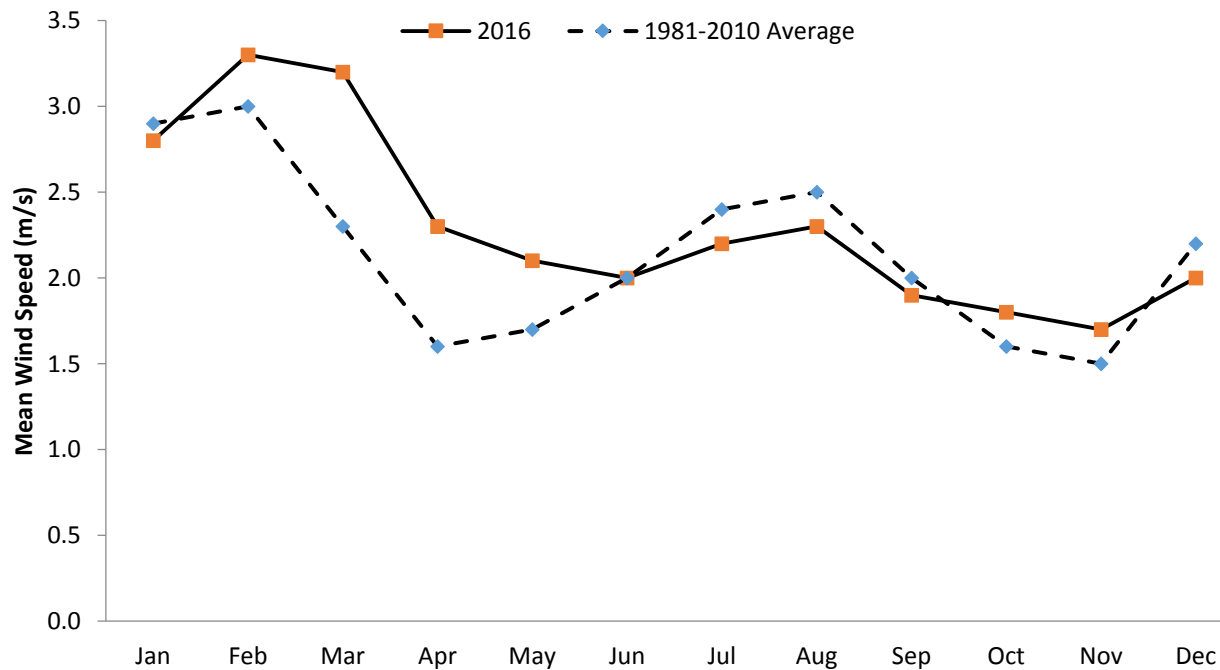
Monthly Average of Daily Minimum Relative Humidity at Changi Climate Station



Monthly Average of Daily Maximum Relative Humidity at Changi Climate Station



Monthly Average Wind Speed at Changi Climate Station



5. Daily Records³ of Changi Climate Station

³ All daily records are defined as records from midnight to midnight Singapore local time, on that calendar date

Daily Total Rainfall (mm), Changi, Singapore 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.0	0.0	0.0	0.0	0.0	0.8	0.0	22.2	3.6	0.0	35.0	18.4
2	39.6	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.2
3	16.6	0.0	0.0	7.6	0.0	0.0	0.0	7.0	0.0	75.4	19.2	1.0
4	0.0	0.2	0.4	6.2	0.0	3.8	0.0	0.0	1.8	0.0	0.0	18.6
5	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	12.6	0.0	4.4	0.8
6	0.0	1.8	0.0	0.0	0.0	0.0	1.2	4.6	1.0	0.4	0.0	21.6
7	0.0	26.4	0.0	0.0	0.0	0.0	0.8	0.0	5.0	22.2	1.2	33.4
8	0.0	0.0	0.6	0.0	0.0	3.8	4.4	0.0	0.0	0.0	0.0	0.0
9	1.8	0.0	0.0	1.2	0.0	0.6	0.0	0.0	6.6	0.0	64.4	23.4
10	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	2.8	0.0	11.0	2.0
11	0.0	0.4	0.0	0.0	8.0	16.2	1.4	3.6	0.2	0.0	5.6	7.6
12	0.0	0.6	0.0	9.4	0.0	0.0	0.0	3.4	3.4	0.2	8.8	0.0
13	0.0	0.0	2.4	0.0	0.8	7.2	1.2	0.0	0.0	0.0	0.0	0.0
14	0.2	1.2	0.0	9.6	16.4	0.0	0.8	0.2	34.0	1.6	65.6	0.2
15	5.6	0.0	0.0	4.8	0.0	34.6	0.4	0.0	0.0	0.0	0.0	0.0
16	12.2	0.0	0.0	0.0	31.6	6.4	1.6	0.0	15.2	5.0	30.2	2.4
17	33.2	0.0	0.0	0.0	0.0	18.4	0.4	2.2	0.0	0.0	29.4	29.6
18	2.6	0.0	0.0	0.0	54.8	0.2	44.0	0.0	7.2	0.0	1.0	2.4
19	2.0	70.4	0.0	0.2	0.0	0.0	0.4	11.2	15.8	22.4	0.8	6.0
20	0.8	2.6	0.0	0.4	2.8	0.0	11.8	0.0	0.0	0.0	1.8	0.0
21	0.6	0.0	0.2	0.0	10.6	0.0	59.4	30.6	2.5	1.0	0.0	3.0
22	0.0	0.0	1.0	0.0	25.6	2.2	28.8	0.2	0.0	4.2	1.4	12.2
23	0.0	0.0	0.0	0.0	1.8	0.0	4.8	18.2	0.0	0.8	1.2	19.6
24	0.0	71.8	0.0	13.8	0.0	67.8	0.8	13.4	0.0	7.0	0.0	73.0
25	2.4	0.0	0.0	18.2	0.0	0.0	0.2	0.0	0.0	15.0	2.8	10.4
26	6.0	0.0	0.0	7.6	0.0	0.8	1.6	0.0	0.0	1.6	4.6	0.0
27	1.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	14.6	0.0	0.6
28	0.0	0.0	0.0	6.2	29.8	0.0	0.0	0.0	0.0	0.0	0.0	3.8
29	0.0	0.0	0.0	0.4	0.0	0.0	0.0	10.6	0.0	9.2	0.8	0.0
30	0.0		0.0	0.0	11.0	0.0	0.6	11.6	7.2	0.4	0.0	1.4
31	0.0		0.0		0.0		4.0	0.0		0.0		0.0
Monthly Average	4.1	6.4	0.2	3.0	6.3	5.4	5.4	4.5	4.0	5.8	9.7	9.4

■ No Data

— Defective Data

Daily Average Temperature (°C), Changi, Singapore 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	27.5	28.8	28.6	29.6	29.6	28.0	29.8	27.4	27.1	27.9	26.7	25.7
2	25.7	27.7	28.2	29.8	29.4	28.7	29.9	29.1	28.5	30.0	27.4	27.4
3	25.4	28.5	28.5	28.8	30.0	28.7	30.1	27.5	29.1	27.8	27.4	27.3
4	27.8	28.2	28.4	29.2	30.7	26.9	30.1	28.4	28.7	28.3	28.3	28.6
5	28.6	28.3	28.5	29.0	29.5	28.7	30.1	29.5	27.9	28.5	26.9	28.7
6	28.5	28.7	29.0	29.4	29.8	29.7	29.3	28.3	28.8	27.9	28.8	27.7
7	28.7	27.0	28.5	29.3	29.8	29.9	29.4	29.4	27.5	25.9	26.8	27.8
8	28.6	27.7	28.4	29.7	29.7	28.0	29.1	29.6	29.2	28.6	28.7	28.5
9	28.5	26.8	29.2	28.8	30.0	28.5	29.8	29.0	27.8	28.5	27.0	27.0
10	28.7	26.7	29.0	29.7	30.7	28.7	29.6	29.7	27.0	29.7	27.3	27.5
11	28.8	27.4	29.4	29.8	29.3	28.1	28.1	29.2	28.5	30.1	26.9	26.5
12	29.0	27.6	28.9	29.9	29.7	28.6	29.8	29.0	26.3	29.9	27.5	28.5
13	29.0	28.6	29.0	29.6	28.8	28.7	28.2	29.4	28.9	29.5	27.8	28.4
14	28.7	28.5	29.2	29.4	27.7	28.4	27.6	28.7	26.5	28.9	25.5	28.0
15	27.9	28.9	29.2	28.9	28.8	28.5	27.4	29.3	28.7	30.0	27.6	28.7
16	28.0	28.7	28.6	29.9	28.5	28.4	28.4	29.6	28.1	28.6	26.4	28.2
17	27.4	28.1	29.0	30.1	29.2	26.4	27.7	29.3	28.9	29.2	27.0	26.8
18	28.6	27.9	28.8	30.3	28.5	26.9	27.3	30.2	28.3	29.6	27.4	26.9
19	28.5	25.1	28.9	30.5	28.6	27.7	28.0	28.3	28.3	27.6	27.9	28.0
20	28.3	26.7	29.3	29.4	29.6	29.0	27.1	29.6	28.7	29.0	28.0	28.6
21	28.3	27.5	29.1	30.4	28.9	28.9	27.1	27.8	28.1	29.0	28.6	28.5
22	28.5	28.2	28.3	29.7	28.1	27.3	26.0	29.2	28.3	28.3	27.4	26.7
23	28.7	28.0	28.8	29.8	29.1	29.2	27.1	29.2	28.4	28.2	27.6	27.0
24	28.8	25.9	29.5	29.2	29.9	26.7	27.4	27.7	28.5	26.8	27.6	26.3
25	28.3	27.8	29.0	28.7	30.0	29.1	27.5	29.2	28.7	26.9	27.7	26.6
26	27.9	28.4	29.5	28.9	28.6	28.8	26.5	29.4	28.3	27.2	27.4	26.5
27	28.8	28.3	29.6	28.9	30.0	28.9	28.4	29.4	28.1	25.9	27.3	26.3
28	29.0	28.5	29.6	28.9	29.0	29.5	28.6	28.8	29.7	27.4	27.6	25.7
29	28.6	28.7	29.3	29.0	29.7	30.3	28.7	28.9	29.6	27.1	26.4	27.6
30	28.8		29.4	28.6	27.9	30.0	28.9	27.4	28.1	27.3	28.1	27.0
31	28.8		29.6		28.8		27.6	28.3		28.8		26.6
Monthly Average	28.3	27.8	29.0	29.4	29.3	28.5	28.4	28.9	28.3	28.3	27.4	27.4

■ No Data

— Defective Data

Daily Maximum Temperature (°C), Changi, Singapore 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	29.8	32.7	31.9	34.2	33.1	32.2	32.7	30.8	31.6	31.4	28.7	27.2
2	28.0	31.7	31.2	34.4	33.3	32.0	32.2	32.4	31.6	33.9	31.4	32.2
3	26.8	32.5	32.0	31.9	33.6	32.5	33.4	30.1	32.3	31.2	31.7	29.8
4	31.9	31.7	31.6	32.3	34.3	27.8	33.0	30.4	33.0	32.9	31.7	32.9
5	32.1	31.6	32.2	31.7	33.8	31.9	33.2	32.7	31.3	31.9	28.7	32.8
6	31.5	32.4	32.7	33.8	34.6	32.5	31.9	32.1	31.8	30.2	32.5	32.6
7	31.9	28.4	32.6	33.7	33.4	32.7	32.1	32.0	28.5	27.9	28.7	33.1
8	32.4	29.7	32.4	34.4	32.9	31.0	31.8	32.7	31.8	32.9	32.6	32.7
9	32.1	28.6	33.2	33.3	34.1	32.0	32.9	32.2	32.2	31.8	30.0	31.2
10	32.3	28.6	33.4	35.0	34.5	32.2	32.7	32.8	29.8	34.2	32.1	30.6
11	32.5	30.2	33.8	33.5	34.0	32.0	30.2	31.1	32.1	34.6	30.3	29.8
12	32.3	32.1	32.3	34.5	33.2	31.6	33.0	31.1	28.6	34.3	32.0	32.4
13	32.6	32.1	33.6	33.2	31.8	32.0	31.2	32.1	32.3	32.0	30.8	33.1
14	32.1	32.0	32.9	33.6	32.8	32.1	30.4	32.9	30.5	32.6	27.6	33.6
15	32.1	32.4	32.9	30.7	32.8	30.9	30.9	32.3	32.2	34.2	31.4	33.0
16	32.8	31.9	33.4	33.5	34.3	31.2	33.4	32.3	32.3	32.3	29.1	31.8
17	31.8	31.4	33.8	34.1	32.5	30.6	33.2	32.7	32.0	32.1	31.6	31.3
18	32.5	31.5	33.3	34.1	33.3	29.4	32.5	32.7	32.9	32.9	31.7	31.6
19	32.0	28.2	33.2	34.6	32.8	30.4	33.3	31.4	31.9	30.7	31.5	32.5
20	31.5	29.9	33.4	33.8	32.4	32.9	30.1	31.9	32.8	32.7	31.3	33.0
21	31.8	31.0	34.1	34.8	31.3	31.3	30.5	29.1	33.6	32.6	32.2	33.4
22	31.6	31.9	33.5	33.7	32.1	31.4	30.0	31.7	32.4	32.0	28.9	31.8
23	32.5	31.8	33.2	33.1	33.2	32.1	30.8	32.4	32.3	32.4	29.8	30.5
24	32.5	29.5	33.5	31.6	31.9	29.2	31.0	30.7	32.1	30.7	31.5	32.5
25	32.2	31.1	33.7	32.6	33.1	32.0	28.8	32.2	32.6	32.4	32.0	31.8
26	30.4	31.6	33.4	32.6	31.3	31.6	29.4	33.8	33.3	31.2	31.2	30.6
27	32.2	31.9	33.6	33.6	32.8	30.6	31.9	33.3	30.3	31.0	29.5	30.2
28	32.8	31.9	34.0	32.7	31.9	32.1	31.0	31.9	34.1	31.8	30.0	28.3
29	32.3	32.0	33.7	32.8	32.2	33.4	31.9	32.0	34.4	30.1	28.1	31.2
30	32.5		33.5	33.8	31.9	33.1	31.0	29.2	34.3	30.0	31.8	32.0
31	32.6		33.8		32.5		31.8	32.0		33.0		29.1
Monthly Average	31.8	31.1	33.1	33.4	33.0	31.6	31.7	31.8	32.0	32.1	30.7	31.6

■ No Data

— Defective Data

Daily Minimum Temperature (°C), Changi, Singapore 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	25.2	26.3	26.1	27.1	26.7	25.8	27.0	23.3	24.7	25.3	23.7	24.8
2	22.9	24.9	26.4	26.5	27.8	26.2	28.4	27.1	25.1	27.1	23.6	24.3
3	24.5	25.5	26.8	26.0	27.1	26.4	28.2	22.1	26.0	21.6	24.6	24.8
4	24.8	26.3	26.5	27.0	27.9	25.5	28.1	27.0	26.6	26.1	25.9	26.0
5	26.2	26.0	26.2	27.5	27.0	26.2	28.0	26.9	25.8	26.0	25.3	25.6
6	26.6	26.5	26.9	26.3	27.6	27.8	26.8	25.6	26.9	24.5	26.4	24.3
7	26.8	25.2	26.6	25.9	27.4	27.4	26.9	27.3	24.3	23.4	25.3	24.2
8	25.8	26.2	26.7	26.6	27.4	25.3	24.3	27.6	27.7	25.1	25.1	25.2
9	26.0	25.7	26.8	26.3	27.0	25.7	27.7	27.4	25.3	24.3	23.3	24.9
10	26.7	25.4	26.8	26.4	28.3	26.4	27.7	27.4	22.9	25.9	24.3	24.4
11	25.9	25.6	27.0	27.8	26.0	25.1	25.4	27.9	25.8	27.0	24.8	23.0
12	27.0	24.2	26.4	25.7	27.6	26.6	27.4	25.2	24.1	27.4	25.1	26.0
13	26.8	26.6	26.0	27.2	26.9	26.7	25.4	27.7	25.2	27.3	25.7	25.1
14	26.7	26.6	27.1	25.6	25.1	26.1	26.1	26.1	23.1	24.4	23.2	25.0
15	26.2	26.5	26.9	26.1	26.4	24.2	25.1	27.6	25.3	26.6	24.3	25.9
16	25.6	26.9	25.4	27.1	24.8	26.4	25.3	27.2	22.7	25.4	22.7	26.1
17	23.8	26.2	25.8	27.3	26.8	24.4	25.4	26.5	26.0	27.4	24.1	24.5
18	25.8	25.0	25.8	27.2	24.7	24.8	24.8	28.0	22.6	26.6	25.2	23.4
19	26.5	23.8	25.8	27.3	26.2	25.6	24.1	22.7	23.9	22.7	25.4	25.1
20	26.8	24.8	27.1	27.4	27.7	25.8	23.6	27.6	25.2	26.3	26.2	25.6
21	27.0	24.9	27.3	27.2	25.1	27.1	22.5	22.9	24.0	25.6	26.1	25.7
22	26.2	25.5	25.7	28.2	24.6	24.6	23.6	27.6	26.1	24.4	25.3	24.1
23	26.6	25.8	26.1	27.8	25.6	26.3	24.4	25.1	25.3	26.0	25.1	24.3
24	26.8	23.3	26.9	25.9	27.9	22.5	25.9	24.4	25.6	24.6	25.4	23.3
25	26.6	24.9	26.3	25.4	26.2	27.1	25.6	25.8	25.8	23.3	25.1	24.7
26	25.0	26.2	26.9	25.3	26.4	25.9	24.2	25.9	25.5	24.4	25.3	24.1
27	26.4	25.3	27.5	25.5	28.2	27.6	24.9	27.5	26.0	24.0	25.0	24.5
28	26.6	26.0	27.0	27.0	23.9	27.4	25.8	26.9	26.4	25.0	26.1	23.4
29	26.2	26.9	27.3	27.1	27.1	27.8	25.7	26.5	26.3	23.8	25.1	25.1
30	26.5		26.7	26.1	25.0	28.3	27.1	24.5	24.3	24.8	25.1	24.6
31	26.6		26.9		25.6		25.0	25.8		25.9		24.8
Monthly Average	26.0	25.6	26.6	26.7	26.5	26.1	25.8	26.2	25.2	25.2	24.9	24.7

■ No Data

— Defective Data

Daily Average Relative Humidity (%), Changi, Singapore 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	84.1	73.4	73.9	69.8	74.2	80.8	75.7	79.5	82.5	70.6	85.8	87.9
2	90.3	78.9	75.3	70.9	75.9	78.9	75.0	69.1	70.5	65.2	76.0	73.5
3	92.6	75.4	75.9	78.4	72.8	76.2	73.0	77.3	71.2	72.1	78.5	77.1
4	82.7	79.1	76.8	78.1	70.3	83.8	72.2	72.3	76.0	70.7	70.4	71.3
5	78.7	80.9	78.8	78.8	77.8	81.2	71.8	69.6	78.7	72.7	83.2	70.8
6	80.0	80.8	77.3	73.6	76.6	74.8	74.8	78.8	72.0	73.6	69.8	81.1
7	75.8	84.3	80.4	71.2	76.5	72.8	74.3	74.7	78.1	87.5	88.1	82.2
8	76.7	73.8	80.3	71.2	75.5	81.8	72.9	70.5	73.4	65.5	71.1	70.7
9	78.0	78.2	77.0	78.8	73.7	81.0	69.9	77.0	79.1	64.8	83.8	79.5
10	77.3	81.6	78.5	75.7	70.5	79.0	71.5	70.5	81.9	61.8	82.4	72.4
11	77.1	84.4	76.0	75.0	78.9	82.6	80.8	73.2	74.8	62.8	81.7	73.3
12	75.5	81.8	75.0	74.4	77.9	77.4	73.6	72.7	86.2	63.0	77.2	57.2
13	76.4	80.9	77.1	74.2	80.2	78.0	79.0	71.6	73.8	66.7	76.8	62.3
14	79.2	80.8	77.2	76.5	86.4	79.5	81.4	70.7	85.4	67.1	91.7	62.8
15	81.7	79.5	72.6	78.2	79.6	77.2	81.2	71.5	76.2	61.3	76.5	60.8
16	83.9	75.1	71.4	74.4	81.2	79.1	75.0	70.6	71.4	70.7	80.7	67.2
17	86.3	69.0	72.5	74.0	80.0	87.0	78.8	76.1	67.8	64.8	81.8	81.5
18	81.2	76.4	72.3	71.5	83.7	83.3	84.0	71.3	75.2	67.6	81.1	74.4
19	78.9	94.2	72.1	71.9	82.7	76.0	75.1	77.2	75.5	73.6	78.7	64.8
20	78.3	85.9	74.0	76.5	79.0	68.8	83.9	71.6	66.0	68.9	80.0	54.9
21	76.2	77.2	78.1	69.0	76.9	74.5	—	81.4	73.9	70.5	70.4	54.8
22	79.8	72.8	81.1	75.7	83.8	82.0	89.0	73.0	75.8	72.5	78.2	78.0
23	77.5	77.8	79.5	73.5	77.8	76.8	81.8	74.8	69.0	78.0	72.8	78.4
24	76.8	88.9	74.1	78.8	74.5	—	79.8	80.1	70.9	86.8	69.1	84.9
25	76.9	75.7	72.3	79.0	76.8	74.5	76.6	68.1	68.8	83.1	76.2	82.3
26	80.3	72.3	67.6	79.2	75.5	78.1	82.3	66.2	69.8	79.0	85.2	75.3
27	78.1	76.2	71.4	80.1	74.9	73.3	77.8	71.9	72.2	83.5	76.9	71.2
28	77.1	76.1	69.2	81.6	76.9	70.0	73.6	71.2	66.0	74.8	69.2	75.8
29	78.9	74.8	70.2	77.5	73.7	67.3	73.5	79.0	59.5	82.6	71.2	63.8
30	76.6		70.1	79.3	81.3	73.4	74.7	83.5	75.3	78.4	62.4	82.0
31	75.4		69.1		73.8		80.7	78.8		71.4		85.0
Monthly Average	79.6	78.8	74.7	75.6	77.4	77.6	77.1	74.0	73.9	72.0	77.6	72.8

■ No Data

— Defective Data

Daily Total Radiation (MJ/m²), Changi, Singapore 2016

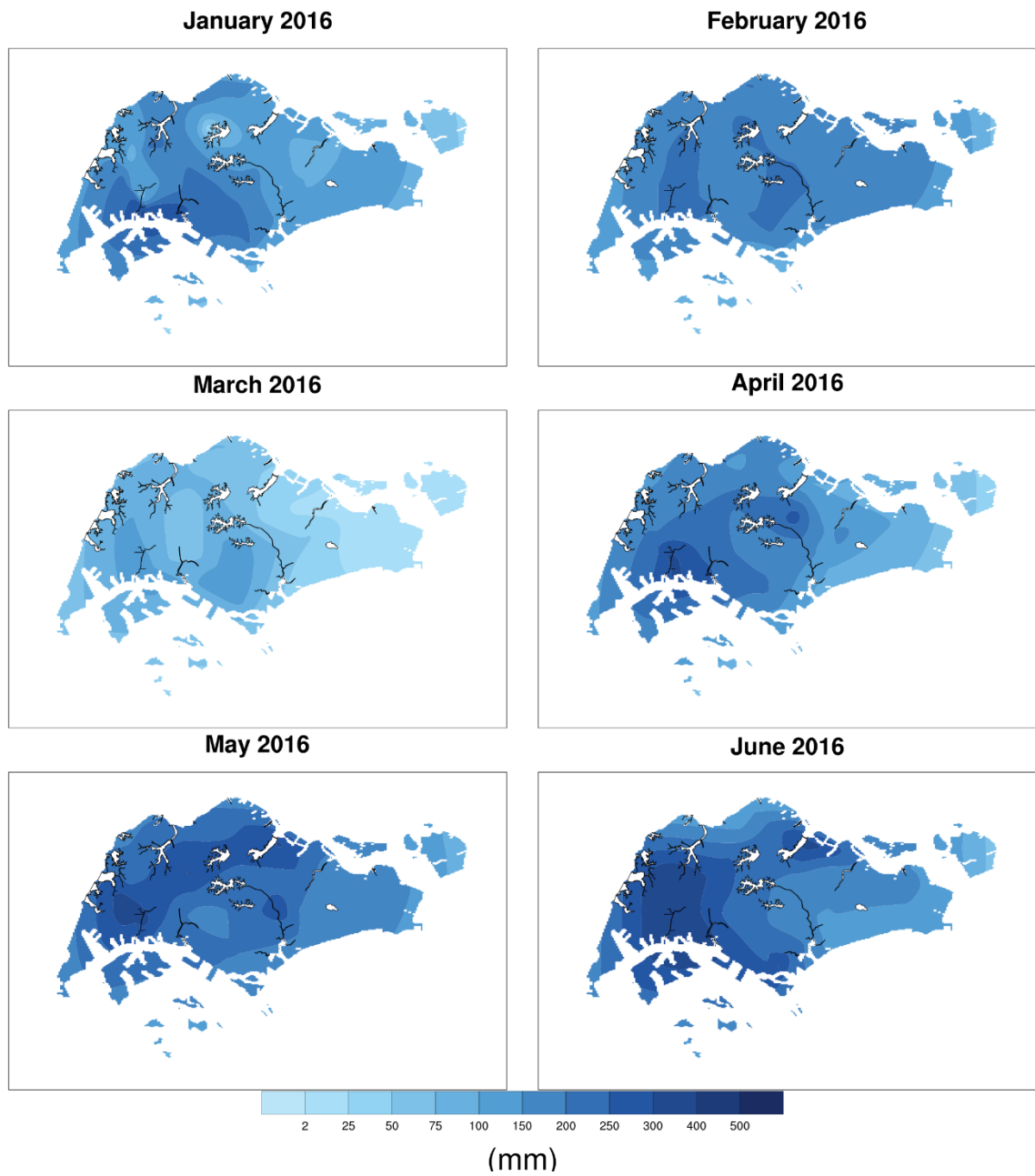
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9.9	24.3	26.1	26.0	21.6	10.5	18.9	15.0	10.5	14.4	9.9	3.4
2	2.8	17.0	17.9	24.2	14.7	14.6	11.5	23.0	24.4	18.4	15.4	20.1
3	3.8	22.1	22.6	11.2	19.6	15.3	17.7	13.1	24.5	13.8	15.0	8.8
4	19.9	13.6	21.0	15.8	23.7	3.8	19.7	22.3	18.9	20.5	15.3	20.1
5	22.4	16.5	22.1	13.3	15.8	13.5	18.7	17.1	9.9	10.8	6.5	21.6
6	16.9	19.1	24.5	0.0	15.8	19.3	18.0	13.0	18.2	8.9	16.6	17.4
7	23.3	7.0	16.3	—	17.9	19.7	21.8	16.2	8.5	3.3	5.6	13.2
8	24.0	10.6	16.2	—	21.7	9.8	18.0	14.9	18.6	18.3	23.1	16.6
9	23.4	8.3	25.4	—	20.4	15.3	18.8	19.0	13.9	19.2	8.8	11.2
10	20.8	7.5	23.7	—	19.8	15.9	17.7	21.6	14.7	23.2	14.1	12.6
11	22.5	12.7	25.5	—	14.2	9.1	10.7	12.5	21.8	22.1	14.0	11.4
12	22.5	20.1	24.1	—	17.4	20.2	19.6	16.0	3.0	18.5	17.4	17.2
13	19.2	20.5	21.8	7.5	11.1	18.3	7.1	16.8	23.0	13.0	12.9	19.2
14	17.8	19.4	21.8	12.2	8.6	19.1	7.6	14.8	7.3	16.4	2.3	19.8
15	14.8	22.5	24.1	11.6	15.3	12.7	9.7	22.0	20.2	22.5	15.4	17.1
16	17.2	24.6	23.3	21.9	16.8	14.5	18.4	20.3	23.1	12.3	11.2	15.7
17	12.7	21.5	25.4	21.9	16.4	7.4	16.9	16.6	13.5	13.9	13.0	11.6
18	20.9	19.9	21.9	24.3	13.9	7.6	10.9	24.1	16.1	20.9	16.1	15.8
19	14.3	5.9	23.9	24.3	13.4	9.4	13.2	20.2	14.4	9.7	12.3	16.7
20	15.6	7.9	18.8	13.7	12.0	19.7	10.3	23.8	15.4	19.8	12.0	19.6
21	14.7	20.8	19.4	23.5	10.3	7.6	20.2	10.6	—	20.6	15.4	17.8
22	14.3	25.0	12.2	15.8	17.3	5.9	6.1	12.8	12.7	10.6	7.1	15.4
23	18.4	21.7	14.1	19.0	21.1	16.5	13.9	18.0	17.2	11.6	15.5	12.6
24	22.8	6.0	20.8	12.8	12.8	8.6	17.1	15.1	19.4	8.1	19.0	14.1
25	20.9	24.1	19.1	12.4	16.7	19.2	9.4	19.7	16.2	14.1	18.6	15.2
26	10.5	25.7	20.6	15.5	15.2	12.7	6.9	15.8	18.0	13.2	11.9	12.9
27	20.2	25.5	24.3	16.0	17.2	11.3	20.7	14.8	12.0	10.9	9.9	14.7
28	21.6	24.0	23.8	13.7	11.6	22.1	18.8	17.0	19.3	15.1	13.3	6.8
29	22.0	25.3	22.4	14.3	18.3	22.7	22.7	19.3	23.6	9.8	6.2	20.8
30	23.3		23.7	15.8	12.3	18.3	11.0	7.9	16.9	15.2	17.6	16.5
31	21.3		25.2		18.6		15.7	20.0		17.6		9.2
Monthly Average	17.9	17.9	21.7	16.1	16.2	14.0	15.1	17.2	16.4	15.1	13.1	15.0

■ No Data

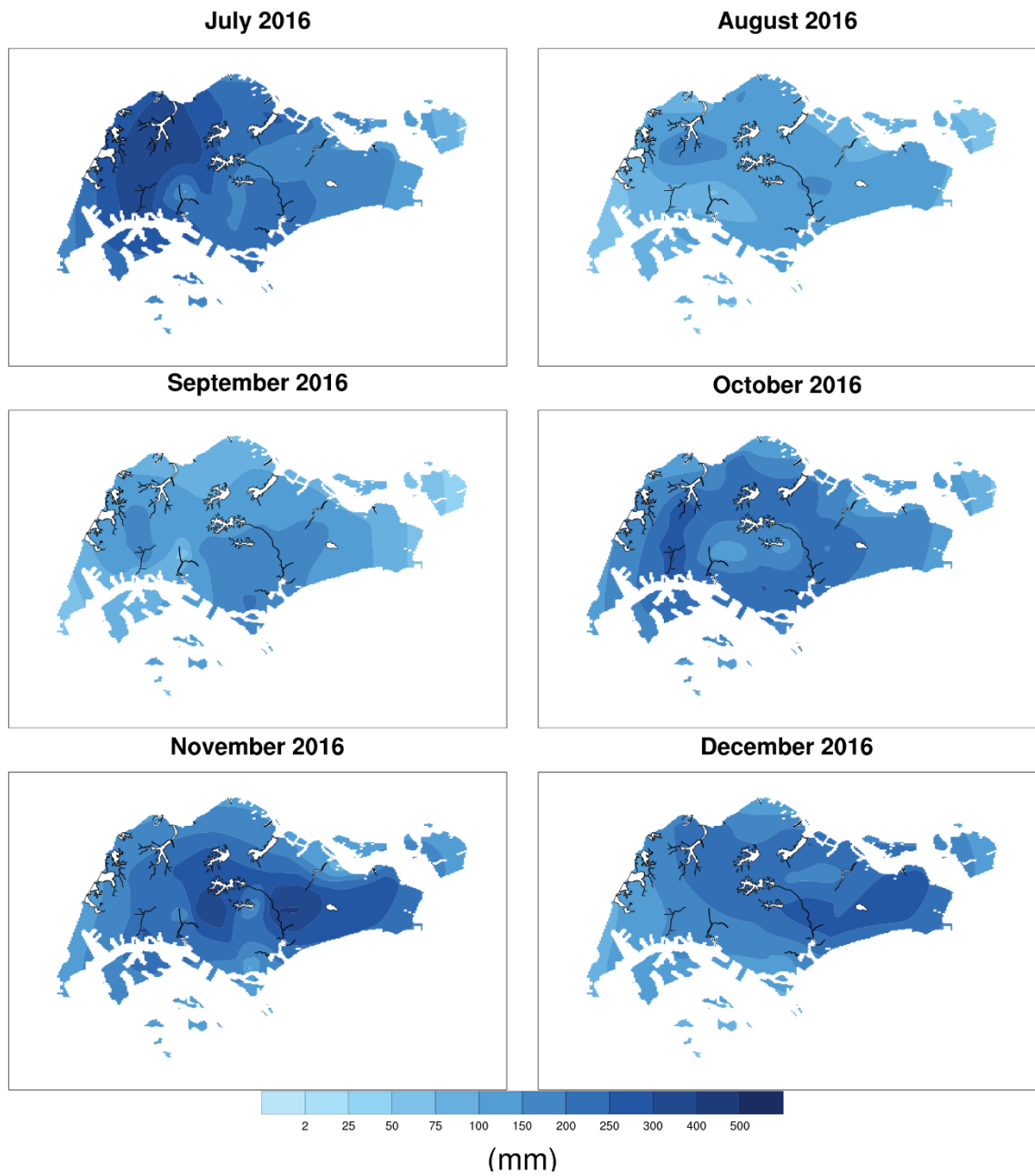
— Defective Data

6. Isohyets

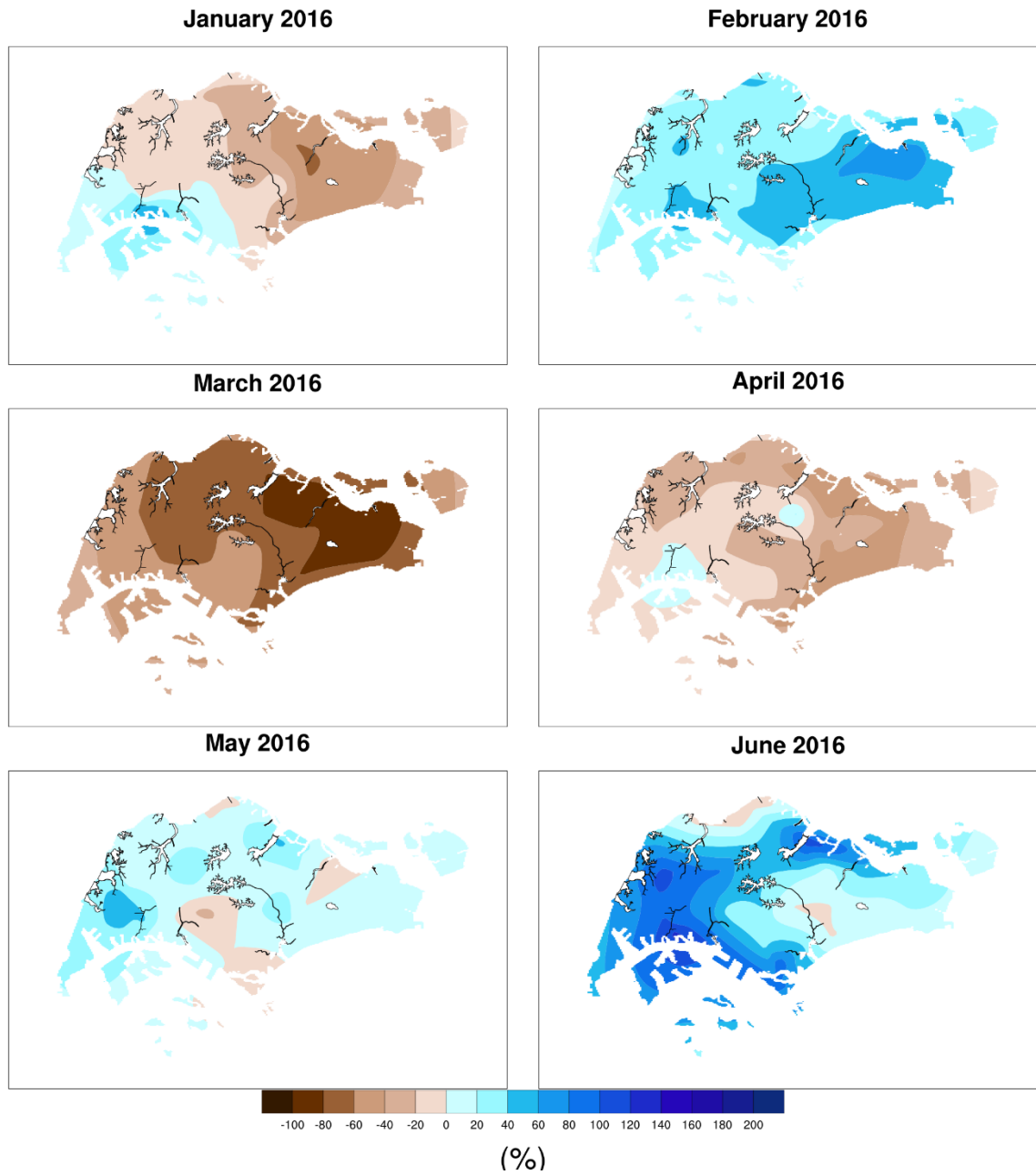
Rainfall Jan-Jun 2016



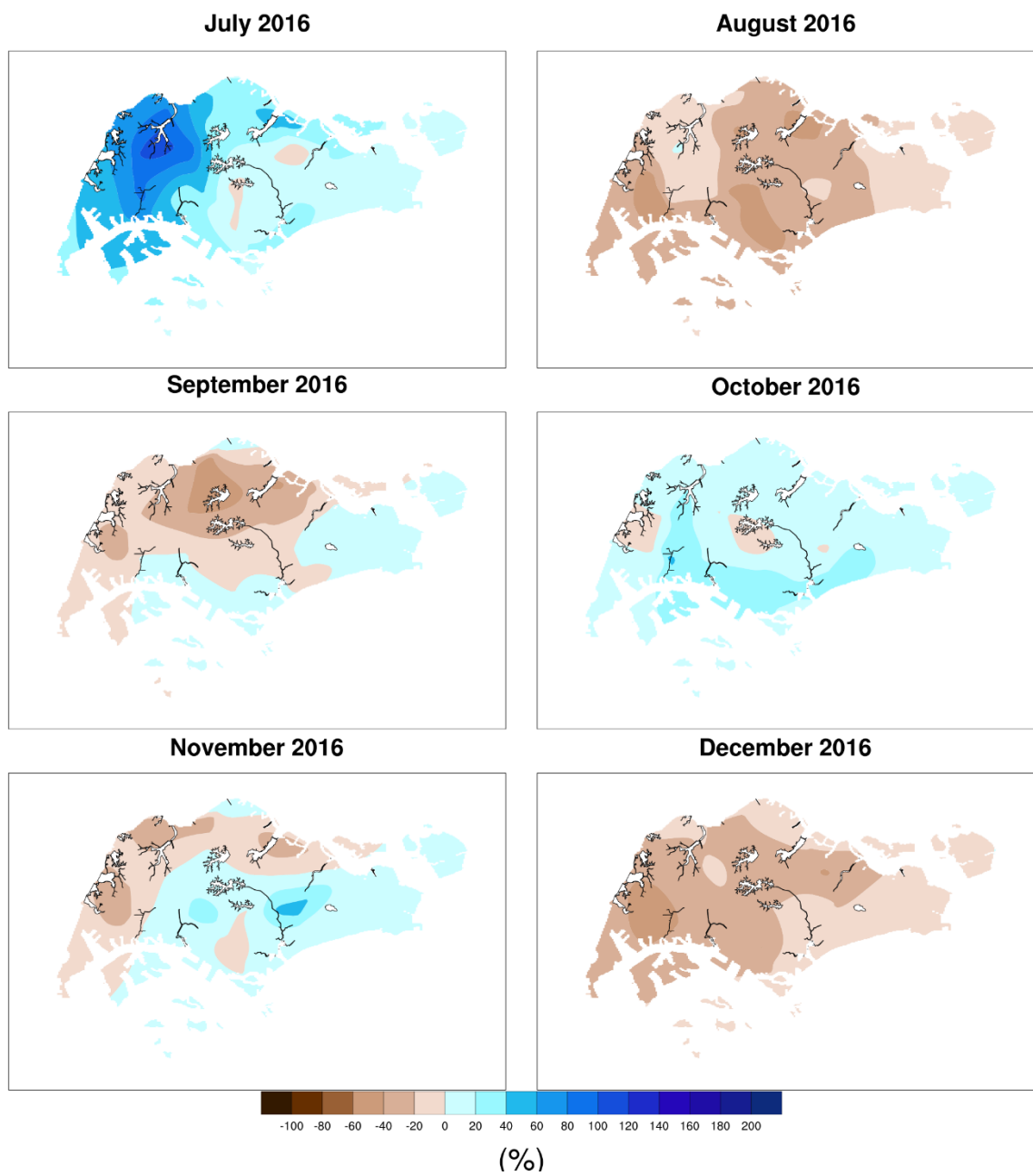
Rainfall Jul-Dec 2016



Rainfall Anomaly Jan-Jun 2016



Rainfall Anomaly Jul-Dec 2016



7. Monthly Observation of Weather Parameters

7.1. 2016 Monthly Average Temperature (°C)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	28.3	27.8	29.0	29.4	29.3	28.5	28.4	28.9	28.3	28.3	27.4	27.4
Paya Lebar	—	—	—	—	—	—	—	—	—	—	—	—
Tengah	27.5	27.1	28.4	28.5	28.3	27.2	27.7	28.3	28.0	28.0	27.1	27.3
Seletar	28.4	28.0	29.1	29.7	29.6	28.7	28.7	29.7	28.9	28.8	27.9	27.9
Sembawang	27.9	27.6	28.6	28.8	28.4	27.5	27.8	28.4	27.8	27.7	27.0	27.2
Automatic Meteorological Stations												
Tai Seng	28.5	28.0	29.0	29.7	29.8	29.2	28.9	29.5	29.0	28.9	27.9	27.9
Jurong (West)	27.3	27.1	28.2	28.7	28.5	27.9	27.9	28.6	27.9	27.7	26.9	27.0
Clementi	27.6	27.3	28.3	28.8	28.9	28.1	28.0	28.7	28.2	27.8	27.1	27.3
Sentosa Island	28.3	—	29.0	29.3	29.3	28.6	28.3	28.8	28.5	28.4	27.7	—
Boon Lay (East)	28.1	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	28.0	27.8	28.8	29.5	29.5	29.0	28.7	29.0	28.8	28.5	27.6	27.9
Admiralty	27.7	27.3	28.4	29.1	28.8	28.1	28.2	28.8	28.2	28.1	27.2	27.2
Pulau Ubin	27.6	27.3	28.1	28.7	28.5	27.6	27.7	28.2	27.5	27.5	26.8	26.8
East Coast Parkway	28.4	28.0	28.8	29.4	29.4	29.0	28.8	29.1	28.6	28.5	27.8	27.8
Marina Barrage	28.6	28.2	29.3	30.0	30.0	29.2	29.0	29.5	29.0	28.8	28.0	28.2
Ang Mo Kio	27.8	27.4	28.5	29.1	29.2	28.4	28.3	29.1	28.4	28.3	27.4	27.4
Newton	27.7	27.3	28.4	28.9	28.8	28.1	27.9	28.4	—	—	—	27.1
Tuas South	27.9	27.8	29.0	29.7	29.5	28.7	28.0	29.3	28.8	28.7	27.9	27.9
Pasir Panjang	28.3	28.1	29.1	29.7	29.7	29.1	28.9	29.3	28.9	28.7	27.9	28.0
Jurong Island	28.1	28.0	29.1	29.7	29.7	29.1	29.0	29.1	28.7	28.8	27.9	28.4
Choa Chu Kang (South)	27.5	27.4	28.6	28.7	28.7	27.9	28.0	28.8	28.2	28.1	27.2	27.4
Khatib	28.1	27.8	28.9	28.9	28.6	27.7	27.9	28.5	28.0	27.9	27.2	27.3
Monthly Average	28.0	27.6	28.7	29.2	29.1	28.4	28.3	28.9	28.4	28.3	27.5	27.6

■ No Data

— Defective Data

7.2. 2016 Monthly Maximum Temperature (°C)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	32.8	32.7	34.1	35.0	34.6	33.4	33.4	33.8	34.4	34.6	32.6	33.6
Paya Lebar	34.5	34.1	35.5	36.5	36.5	35.4	34.1	34.2	36.3	35.5	34.2	35.6
Tengah	34.8	34.0	35.3	36.2	36.1	34.9	35.2	34.2	35.3	34.9	34.7	35.4
Seletar	34.4	33.5	34.9	36.7	36.1	35.7	36.0	35.4	36.8	35.5	35.4	35.9
Sembawang	33.7	33.3	34.1	35.1	35.3	34.5	34.6	33.8	35.3	34.5	34.1	34.8
Automatic Meteorological Stations												
Tai Seng	33.0	32.8	33.7	35.4	35.5	34.9	34.3	33.6	35.4	34.5	33.8	34.3
Jurong (West)	33.6	33.0	34.6	35.1	35.4	33.7	33.7	32.9	33.2	32.5	33.4	34.1
Clementi	33.4	33.4	35.0	36.4	35.9	34.2	34.3	33.4	34.9	34.1	33.4	34.7
Sentosa Island	33.8	27.8	34.2	35.3	35.3	33.3	33.7	33.3	33.7	33.7	32.8	—
Boon Lay (East)	33.6	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	31.2	31.6	32.1	33.5	34.0	32.4	32.5	31.5	31.6	31.0	30.4	32.3
Admiralty	34.4	32.6	35.0	36.3	35.5	34.3	34.7	33.7	34.5	33.8	34.0	34.2
Pulau Ubin	33.3	32.6	34.1	36.6	35.7	34.7	34.2	34.2	34.9	35.5	34.4	34.0
East Coast Parkway	32.4	32.2	33.2	33.6	33.2	31.7	32.0	31.9	33.7	33.4	31.9	32.7
Marina Barrage	34.5	34.2	34.7	36.0	35.9	34.4	35.6	34.5	35.2	34.6	34.1	34.3
Ang Mo Kio	34.0	32.8	34.7	35.8	35.6	34.5	34.6	34.1	35.2	34.4	34.3	34.7
Newton	33.5	32.6	34.2	34.4	34.5	33.8	33.2	32.2	—	—	—	34.0
Tuas South	34.1	33.4	34.8	35.6	34.4	33.5	34.1	33.1	33.1	32.8	32.3	33.3
Pasir Panjang	33.7	33.3	33.9	35.3	34.2	33.2	33.6	32.8	33.0	33.0	32.1	33.2
Jurong Island	33.9	33.9	34.8	35.6	34.1	33.8	33.5	33.1	33.8	33.5	32.5	34.2
Choa Chu Kang (South)	33.9	33.1	34.8	35.7	35.7	34.6	34.5	33.7	34.3	33.9	34.8	34.9
Khatib	34.3	34.0	34.9	35.7	35.5	34.9	34.7	33.9	35.8	34.6	34.1	34.7
Monthly Average	33.7	32.9	34.4	35.5	35.2	34.1	34.2	33.5	34.5	34.0	33.5	34.3

■ No Data

— Defective Data

7.3. 2016 Monthly Average Relative Humidity (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	79.6	78.8	74.7	75.6	77.4	77.6	77.1	74.0	73.9	72.0	77.6	72.8
Paya Lebar	—	—	—	—	—	—	—	—	—	—	—	—
Tengah	83.6	81.2	77.6	80.7	82.2	84.7	82.6	78.8	79.3	80.4	85.0	82.4
Seletar	77.6	76.2	72.3	73.3	76.2	78.0	76.7	70.7	72.9	73.8	79.6	77.1
Sembawang	82.5	81.3	78.6	81.2	83.5	84.2	82.1	79.6	80.1	82.8	87.2	83.2
Automatic Meteorological Stations												
Tai Seng	78.5	77.8	74.9	74.9	75.9	75.8	76.6	73.0	72.8	73.9	81.2	79.0
Jurong (West)	85.2	80.7	72.3	69.8	73.2	68.4	69.4	69.8	69.0	70.9	—	72.5
Clementi	83.3	81.7	78.8	79.7	80.2	80.9	81.4	77.0	77.7	80.3	84.7	82.7
Sentosa Island	76.5	—	68.0	71.4	73.2	74.0	75.4	71.7	71.1	71.6	78.8	—
Boon Lay (East)	82.5	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	78.8	76.6	76.0	76.5	76.5	76.4	78.1	77.0	76.3	78.1	80.9	80.8
Admiralty	89.6	88.4	85.2	84.9	87.0	87.4	84.9	80.4	82.6	82.9	90.8	87.8
Pulau Ubin	89.9	88.5	86.2	86.3	88.8	91.4	90.6	87.4	87.3	87.4	92.3	90.5
East Coast Parkway	81.4	80.8	79.0	80.2	80.5	80.0	80.5	78.7	78.6	78.9	84.3	82.2
Marina Barrage	78.6	77.6	74.0	75.3	76.2	77.2	77.2	74.4	73.6	75.2	81.7	78.2
Ang Mo Kio	80.1	79.2	74.7	75.5	76.4	76.6	76.4	70.9	72.8	74.2	82.1	79.8
Newton	76.2	74.2	73.9	74.8	74.0	74.9	75.5	72.9	—	—	—	74.1
Tuas South	80.4	77.6	74.5	74.8	76.3	76.8	79.4	73.9	74.6	76.4	79.8	77.9
Pasir Panjang	84.9	82.6	80.2	81.2	82.4	82.8	83.7	80.8	80.2	81.8	86.9	84.3
Jurong Island	78.5	74.0	71.5	73.1	73.5	74.1	75.1	73.6	72.9	73.7	78.4	74.3
Choa Chu Kang (South)	91.1	88.1	88.2	85.1	84.0	86.3	78.2	74.6	74.7	78.8	93.0	78.3
Khatib	79.7	77.1	74.5	70.9	—	—	—	—	—	—	—	—
Monthly Average	81.9	80.2	76.9	77.3	78.9	79.4	79.1	75.8	76.3	77.7	84.2	80.3

■ No Data

— Defective Data

7.4. 2016 Monthly Minimum Relative Humidity (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	55.0	55.0	47.0	46.0	48.0	45.0	48.0	41.0	33.0	38.0	46.0	34.0
Paya Lebar	—	—	—	—	—	—	—	—	—	—	—	—
Tengah	—	—	—	—	—	—	—	—	—	—	—	—
Seletar	—	—	—	—	—	—	—	—	—	—	—	—
Sembawang	—	—	—	—	—	—	—	—	—	—	—	—
Automatic Meteorological Stations												
Tai Seng	52.6	46.3	46.9	40.1	40.3	39.9	45.7	40.9	36.7	39.7	43.5	42.8
Jurong (West)	45.3	44.7	39.0	37.7	40.9	41.6	43.4	44.3	40.6	49.3	55.4	49.1
Clementi	50.2	52.3	49.9	46.7	44.2	46.2	50.0	48.0	40.4	44.0	50.5	46.7
Sentosa Island	40.2	74.0	34.4	37.0	38.5	40.6	39.3	39.8	30.8	39.0	42.7	—
Boon Lay (East)	47.3	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	56.1	48.6	51.2	40.4	46.9	54.1	57.8	55.4	55.8	53.6	56.5	50.6
Admiralty	53.3	50.9	47.1	44.7	44.0	42.2	46.9	44.2	42.9	45.1	45.3	41.2
Pulau Ubin	61.3	58.2	55.9	49.8	54.2	49.3	58.5	52.1	43.0	51.4	47.0	52.0
East Coast Parkway	58.4	57.0	54.2	50.8	55.2	58.3	54.1	58.7	42.8	51.6	60.1	51.8
Marina Barrage	46.5	41.5	43.6	40.7	43.9	46.4	46.8	43.3	33.4	42.2	48.5	42.6
Ang Mo Kio	45.9	45.6	40.1	39.3	39.8	37.0	40.4	38.5	34.0	40.8	39.1	38.2
Newton	50.8	48.0	47.1	43.7	40.5	42.0	48.0	45.5	—	—	—	46.0
Tuas South	47.9	46.8	40.3	40.5	49.6	52.0	45.0	50.6	50.5	53.8	55.7	47.4
Pasir Panjang	47.3	48.0	46.5	44.1	45.8	52.1	54.7	51.6	46.7	43.3	58.8	47.2
Jurong Island	41.3	38.8	35.3	42.2	37.6	42.9	47.4	45.5	42.8	46.7	48.1	39.8
Choa Chu Kang (South)	54.9	52.7	49.7	49.8	44.9	39.4	46.5	44.4	41.2	46.6	81.8	45.6
Khatib	50.4	47.2	45.7	45.0	—	—	—	45.4	57.0	47.9	77.2	51.5
Monthly Average	50.0	50.0	45.4	43.3	44.4	45.6	48.3	46.8	42.6	46.3	54.0	46.2

■ No Data

— Defective Data

7.5. 2016 Monthly Average Wind Speed (m/s)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	2.8	3.3	3.2	2.3	2.1	2.0	2.2	2.3	1.9	1.8	1.7	2.0
Paya Lebar	3.9	4.9	4.2	2.7	2.3	2.3	2.6	3.1	2.7	2.6	2.3	2.8
Tengah	2.9	3.6	3.2	2.2	1.9	1.9	2.1	2.5	2.3	2.3	2.1	2.5
Seletar	3.8	4.7	4.3	2.9	2.3	2.3	2.5	2.9	2.5	2.3	2.2	2.5
Sembawang	2.8	3.3	3.4	2.0	2.0	1.9	2.1	2.3	2.2	2.5	2.4	2.5
Automatic Meteorological Stations												
Tai Seng	2.6	3.3	3.0	1.8	1.5	1.5	1.5	2.0	1.7	1.6	1.5	1.9
Jurong (West)	1.9	2.4	2.1	1.8	1.8	1.8	1.9	2.2	2.1	2.2	1.8	2.2
Clementi	1.7	2.1	2.0	1.5	1.2	1.4	1.6	1.5	1.9	2.2	2.7	3.0
Sentosa Island	2.0	1.7	2.2	2.0	1.9	1.8	1.7	2.2	1.6	1.6	1.7	—
Boon Lay (East)	1.7	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	4.3	5.1	4.8	5.0	5.4	5.6	5.4	6.2	6.9	7.6	6.0	6.5
Admiralty	2.9	3.5	3.3	2.3	1.8	1.6	1.8	2.0	2.0	2.2	2.0	2.5
Pulau Ubin	2.8	3.1	2.9	2.6	2.6	2.4	2.4	2.4	2.3	2.3	2.3	2.2
East Coast Parkway	2.4	3.1	2.9	2.5	2.7	3.0	3.1	4.1	3.1	2.9	2.2	2.2
Marina Barrage	2.3	3.2	2.7	1.7	1.8	2.1	2.5	2.8	3.7	3.9	4.2	4.8
Ang Mo Kio	1.8	2.1	2.0	1.5	1.4	1.3	1.5	1.7	1.5	1.6	1.3	1.6
Newton	1.7	2.0	2.0	1.8	1.8	1.8	2.0	2.3	—	—	—	1.9
Tuas South	1.4	1.8	1.5	1.4	1.6	1.6	1.6	2.0	2.1	2.3	1.8	1.9
Pasir Panjang	2.8	3.4	3.0	2.4	2.5	2.5	2.6	2.8	3.0	3.4	2.7	3.3
Jurong Island	1.5	1.7	1.9	2.2	2.3	2.3	2.5	3.0	2.1	1.9	1.8	1.8
Choa Chu Kang (South)	1.9	2.6	2.2	1.4	1.2	1.2	1.3	1.4	1.3	1.3	1.2	1.6
Khatib	1.5	1.8	1.7	1.2	1.0	1.0	1.1	1.3	1.2	1.1	1.0	1.3
Monthly Average	2.4	3.0	2.8	2.1	2.1	2.1	2.2	2.5	2.4	2.5	2.3	2.6

■ No Data

— Defective Data

7.6. 2016 Monthly Maximum Gust (m/s)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Manned Meteorological Stations												
Changi	18.0	12.7	12.4	12.7	14.9	14.1	14.6	18.1	15.0	14.2	12.7	13.1
Paya Lebar	15.4	15.9	14.4	11.3	15.4	13.4	12.9	17.0	15.9	15.4	13.4	16.5
Tengah	12.9	15.4	14.4	14.4	15.4	13.9	15.9	18.0	14.9	14.9	13.4	16.5
Seletar	17.5	19.0	15.4	13.4	17.5	15.4	17.5	19.0	20.1	17.5	14.4	14.9
Sembawang	14.4	13.9	12.3	13.9	16.5	15.4	19.0	18.5	17.0	18.5	15.4	13.9
Automatic Meteorological Stations												
Tai Seng	14.0	15.2	13.1	10.6	12.6	13.9	22.8	19.7	22.0	13.5	20.1	13.2
Jurong (West)	12.7	13.0	25.2	14.9	20.4	17.5	17.3	19.5	18.9	18.3	16.5	16.7
Clementi	12.0	14.2	11.7	10.4	12.8	10.6	10.5	11.5	12.5	11.8	12.4	11.6
Sentosa Island	12.6	11.2	12.6	11.0	13.2	12.2	12.4	18.0	13.0	13.3	11.8	—
Boon Lay (East)	22.2	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	22.7	23.3	17.3	18.5	23.7	26.1	25.8	27.1	28.6	31.9	28.7	23.1
Admiralty	17.9	16.1	14.7	12.1	16.1	15.0	14.3	18.1	16.6	15.7	16.1	13.0
Pulau Ubin	12.0	12.4	11.0	17.5	12.0	13.9	12.4	12.1	12.0	11.7	12.4	10.5
East Coast Parkway	14.4	14.6	14.4	12.7	14.9	27.9	15.8	18.7	19.4	18.2	18.3	13.1
Marina Barrage	20.5	12.6	12.6	10.3	14.6	13.3	20.4	17.5	17.3	16.2	16.4	14.3
Ang Mo Kio	13.4	14.4	11.1	18.6	17.9	14.8	18.2	19.0	13.7	14.2	17.7	11.7
Newton	13.7	14.6	12.9	13.3	15.1	13.4	15.1	14.3	—	—	—	12.7
Tuas South	15.7	12.1	12.0	17.7	15.0	18.4	15.1	18.0	17.8	20.2	14.8	15.5
Pasir Panjang	16.5	14.1	16.4	17.1	23.5	23.0	18.5	23.9	22.2	23.5	20.7	19.8
Jurong Island	14.3	13.6	11.5	14.9	16.9	16.0	12.8	15.2	15.4	15.9	14.1	12.4
Choa Chu Kang (South)	26.2	15.2	12.0	13.1	12.9	27.0	28.4	15.5	12.1	14.8	24.7	21.7
Khatib	13.5	11.6	10.3	10.2	11.2	10.3	11.1	11.4	13.0	10.9	9.6	11.2
Monthly Average	15.9	14.6	13.8	13.8	15.9	16.6	16.8	17.6	17.0	16.7	16.4	14.9

■ No Data

— Defective Data

7.7. 2016 Monthly Total Rainfall (mm)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Manned Meteorological Stations													
Changi	126.6	186.0	6.2	89.8	193.8	162.8	168.6	139.2	118.9	181.0	290.2	292.6	1955.7
Paya Lebar	86.0	201.1	—	175.8	186.8	165.8	194.7	115.1	194.9	240.4	355.7	235.9	—
Tengah	209.1	231.1	86.7	193.3	247.1	330.8	426.0	213.0	148.9	289.1	231.6	196.8	2803.5
Seletar	119.3	181.2	39.2	100.0	308.2	332.4	260.8	95.6	107.2	215.4	169.6	255.2	2184.1
Sembawang	146.4	181.6	132.9	190.1	234.1	268.8	205.8	131.8	93.5	201.5	206.7	220.3	2213.5
Automatic Meteorological Stations													
Tai Seng	116.2	183.4	55.4	108.2	200.4	148.6	209.6	172.8	180.4	192.8	413.2	268.2	2249.2
Jurong (West)	224.8	193.4	109.2	225.2	346.6	330.6	322.4	85.6	140.0	214.2	169.6	120.4	2482.0
Clementi	234.8	170.8	76.0	203.8	164.8	206.8	275.6	97.4	182.0	—	394.0	205.0	—
Sentosa Island	—	—	69.8	110.8	173.4	253.0	220.0	111.6	187.2	196.0	—	—	—
Boon Lay (East)	—	—	—	—	—	—	—	—	—	—	—	—	—
Semakau Island	216.8	121.2	66.4	58.8	92.0	153.4	199.7	106.6	203.4	258.0	317.2	—	—
Admiralty	174.4	189.4	54.8	116.4	211.0	115.8	256.6	163.4	93.8	245.8	160.6	186.0	1968.0
Pulau Ubin	107.8	186.6	29.8	39.0	145.4	235.6	—	—	118.8	182.2	272.2	231.2	—
East Coast Parkway	99.2	147.4	21.6	128.6	152.2	75.0	158.6	112.2	172.4	167.6	187.8	223.4	1646.0
Marina Barrage	—	—	27.8	66.0	207.2	145.8	207.0	97.0	212.0	255.8	244.4	184.8	—
Ang Mo Kio	136.6	196.8	39.4	280.6	225.6	182.4	179.2	133.6	142.6	220.0	266.2	190.4	2193.4
Newton	190.2	214.4	119.0	161.0	156.4	152.2	165.4	—	—	—	—	177.4	—
Tuas South	281.6	213.0	102.6	101.0	187.4	281.6	288.8	145.8	133.0	202.2	200.0	108.2	2245.2
Pasir Panjang	192.0	157.4	85.4	182.6	116.6	253.2	271.0	79.0	143.0	219.4	197.4	134.0	2031.0
Jurong Island	361.4	—	106.6	125.8	121.4	249.8	—	115.4	156.0	137.8	326.6	100.8	—
Choa Chu Kang (South)	199.4	—	49.6	187.2	238.4	358.6	431.6	192.2	148.6	221.0	239.4	187.2	—
Khatib	119.2	184.4	114.8	241.2	257.0	261.0	181.2	92.0	103.4	184.0	201.4	193.0	2132.6
Monthly Average	178.6	184.6	73.0	149.8	198.6	225.1	247.4	125.6	150.6	213.5	253.0	189.9	2189.6

• No Data

— Defective Data

7.7. 2016 Monthly Total Rainfall (mm)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Precipitation Stations													
Macritchie Reservoir	173.2	215.4	99.2	165.8	232.0	157.4	209.2	143.6	182.6	—	—	254.4	—
Lower Peirce Reservoir	188.8	253.0	48.4	302.9	231.2	247.2	—	—	—	—	—	241.6	—
Choa Chu Kang (West)	—	183.6	101.2	170.4	235.6	359.8	323.2	165.8	174.0	205.0	213.0	182.5	—
Pasir Ris (West)	98.2	197.6	12.4	98.4	149.4	—	—	—	—	—	—	225.6	—
Kampong Bahru	202.6	185.6	85.7	157.6	178.8	308.2	244.8	104.8	216.4	218.4	—	—	—
Jurong Pier	322.4	221.2	115.1	312.4	260.2	374.2	328.2	107.8	—	273.6	262.2	172.2	—
Ulu Pandan	210.2	188.2	50.2	221.2	204.2	277.5	—	—	—	—	—	193.8	—
Serangoon	—	201.8	74.4	176.2	285.2	156.4	204.6	158.8	156.0	223.3	413.4	297.9	—
Mandai	—	208.4	84.4	204.4	267.8	233.6	259.8	113.4	86.8	225.8	266.4	206.4	—
Upper Thomson	174.4	198.6	113.0	154.6	207.8	213.6	184.6	117.6	156.8	188.8	285.8	215.6	2211.2
Buangkok	88.0	177.2	19.2	109.4	245.6	172.8	146.6	118.0	128.8	189.6	243.2	170.6	1809.0
Chai Chee	149.0	160.8	56.4	108.4	153.8	99.2	124.0	—	—	—	247.6	267.6	—
Boon Lay (West)	—	219.8	112.4	319.8	336.4	339.6	382.7	—	199.2	328.0	247.2	158.6	—
Bukit Panjang	186.2	174.8	57.0	208.8	304.8	291.8	362.0	171.4	121.6	226.4	278.2	251.8	2634.8
Kranji Reservoir	199.0	177.0	84.4	174.2	228.2	144.4	324.6	—	—	—	165.6	234.8	—
Upp Peirce Reservoir	136.0	—	61.0	317.6	227.0	172.0	246.0	126.0	110.0	—	261.6	219.0	—
Kent Ridge	268.4	181.8	97.2	232.8	195.4	309.6	267.8	100.4	212.6	299.6	228.4	167.2	2561.2
Queenstown	234.2	212.6	133.6	217.0	206.4	229.6	190.0	100.6	185.6	259.0	234.2	175.2	2378.0
Tanjong Katong	113.6	170.4	37.2	86.8	191.0	131.0	210.0	115.2	154.8	218.4	271.4	250.0	1949.8
Somerset (Road)	184.0	209.0	106.0	144.0	153.6	150.6	196.6	71.2	149.2	255.4	252.2	152.4	2024.2
Punggol	—	177.0	39.0	106.0	211.4	212.8	226.2	156.0	143.6	207.8	237.6	224.4	—
Simei	86.4	146.2	28.6	113.6	147.2	—	—	—	—	—	241.8	233.4	—
Toa Payoh	159.0	192.0	53.2	184.4	247.8	138.4	193.0	155.8	149.6	186.4	314.0	246.2	2219.8
Tuas	276.2	147.2	147.4	285.4	291.4	345.2	293.0	95.4	130.0	265.6	186.2	118.6	2581.6
Bukit Timah	230.8	163.8	128.8	208.0	198.2	212.8	179.4	121.6	225.6	224.0	261.0	194.2	2348.2
Yishun	150.0	174.8	71.2	194.6	285.2	256.2	205.5	129.4	120.8	205.6	177.2	223.2	2193.7
Buona Vista	262.0	194.0	108.8	164.5	203.7	307.0	237.6	123.6	197.0	308.0	199.5	179.6	2485.3
Pasir Ris (Central)	132.2	191.0	7.2	100.0	147.0	136.2	—	—	—	—	279.6	199.6	—
Jurong (North)	—	—	—	289.4	262.0	337.0	434.4	172.8	148.0	310.6	262.6	188.4	—
Admiralty West	174.4	189.4	54.8	116.4	211.0	115.8	256.6	163.4	93.8	245.8	160.6	186.0	1968.0
Serangoon North	159.4	183.6	35.2	243.4	155.3	—	—	129.2	—	—	312.8	209.2	—
Lim Chu Kang	237.4	175.2	153.8	318.4	206.8	103.0	304.5	146.9	108.8	196.6	—	179.0	—
Marine Parade	84.4	150.2	32.0	76.8	136.2	82.6	126.8	—	—	207.8	194.0	266.0	—
Choa Chu Kang (Central)	175.6	158.0	48.0	212.4	279.8	276.4	418.0	162.0	114.2	232.6	215.4	213.8	2506.2
Dhoby Ghaut	230.0	207.2	109.8	142.6	172.8	159.6	197.0	—	—	—	274.4	165.8	—
Nicoll Highway	174.2	179.4	53.8	87.6	187.1	153.1	199.2	111.2	217.0	287.4	309.8	177.4	2137.2
Botanic Garden	259.6	180.2	141.0	231.2	236.0	250.1	212.6	114.6	232.8	256.6	275.4	202.4	2592.5
Whampoa	139.8	189.4	103.0	119.4	205.4	130.6	224.8	145.8	122.6	205.8	322.4	231.6	2140.6
Monthly Average	184.5	187.0	76.7	188.0	218.2	219.3	248.0	129.5	158.3	240.2	250.7	206.8	2307.3
Macritchie Reservoir	173.2	215.4	99.2	165.8	232.0	157.4	209.2	143.6	182.6	—	—	254.4	—
Lower Peirce Reservoir	188.8	253.0	48.4	302.9	231.2	247.2	—	—	—	—	—	241.6	—

• No Data

— Defective Data

8. Weather Parameter Observation by Months

8.1. Jan to Apr

January 2016

Station	Rain	Air Temperature			RH		Wind		Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	126.6	22.9	28.3	32.8	79.6	18.0	2.8	NE	1011.7
Paya Lebar	86.0	23.3		34.5		15.4	3.9	NE	1011.3
Tengah	209.1	23.5	27.5	34.8	83.6	12.9	2.9	NNE	1011.2
Seletar	119.3	23.6	28.4	34.4	77.6	17.5	3.8	N	1011.3
Sembawang	146.4	23.2	27.9	33.7	82.5	14.4	2.8	NE	1011.3
Automatic Meteorological Stations									
Tai Seng	116.2	23.4	28.5	33.0	78.5	14.0	2.6	ENE	1012.2
Jurong (West)	224.8	23.3	27.3	33.6	85.2	12.7	1.9	N	
Clementi	234.8	23.0	27.6	33.4	83.3	12.0	1.7	NE	
Sentosa Island	—	22.7	28.3	33.8	76.5	12.6	2.0	ENE	1012.3
Boon Lay (East)	—	23.6	28.1	33.6	82.5	22.2	1.7	ENE	1012.3
Semakau Island	216.8	22.9	28.0	31.2	78.8	22.7	4.3	N	1011.6
Admiralty	174.4	23.1	27.7	34.4	89.6	17.9	2.9	N	
Pulau Ubin	107.8	22.8	27.6	33.3	89.9	12.0	2.8	NNW	1012.2
East Coast Parkway	99.2	23.4	28.4	32.4	81.4	14.4	2.4	NNE	1012.2
Marina Barrage	—	23.6	28.6	34.5	78.6	20.5	2.3	NE	1012.0
Ang Mo Kio	136.6	22.9	27.8	34.0	80.1	13.4	1.8	NE	1012.3
Newton	190.2	22.8	27.7	33.5	76.2	13.7	1.7	N	
Tuas South	281.6	24.2	27.9	34.1	80.4	15.7	1.4	NE	1012.2
Pasir Panjang	192.0	24.1	28.3	33.7	84.9	16.5	2.8	NE	1011.9
Jurong Island	361.4	22.8	28.1	33.9	78.5	14.3	1.5	N	1011.9
Choa Chu Kang (South)	199.4	23.2	27.5	33.9	91.1	26.2	1.9	NNE	1012.1
Khatib	119.2	23.2	28.1	34.3	79.7	13.5	1.5	NE	1012.4

■ No Data

— Defective Data

February 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	186.0	23.3	27.8	32.7	78.8	12.7	3.3	NE	1012.0
Paya Lebar	201.1	23.8		34.1		15.9	4.9	NE	1011.6
Tengah	231.1	22.3	27.1	34.0	81.2	15.4	3.6	NNE	1011.4
Seletar	181.2	22.2	28.0	33.5	76.2	19.0	4.7	NNE	1011.6
Sembawang	181.6	22.6	27.6	33.3	81.3	13.9	3.3	NNE	1011.5
Automatic Meteorological Stations									
Tai Seng	183.4	23.8	28.0	32.8	77.8	15.2	3.3	ENE	1012.4
Jurong (West)	193.4	23.2	27.1	33.0	80.7	13.0	2.4	NNE	
Clementi	170.8	22.9	27.3	33.4	81.7	14.2	2.1	NE	
Sentosa Island	—	23.3	—	27.8	—	11.2	1.7	N	1013.6
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	121.2	23.7	27.8	31.6	76.6	23.3	5.1	N	1011.7
Admiralty	189.4	23.5	27.3	32.6	88.4	16.1	3.5	N	
Pulau Ubin	186.6	22.2	27.3	32.6	88.5	12.4	3.1	NNW	1012.4
East Coast Parkway	147.4	23.7	28.0	32.2	80.8	14.6	3.1	NNE	1012.4
Marina Barrage	—	22.7	28.2	34.2	77.6	12.6	3.2	NNE	1012.2
Ang Mo Kio	196.8	21.5	27.4	32.8	79.2	14.4	2.1	NE	1012.5
Newton	214.4	22.4	27.3	32.6	74.2	14.6	2.0	N	
Tuas South	213.0	23.4	27.8	33.4	77.6	12.1	1.8	NE	1012.3
Pasir Panjang	157.4	23.8	28.1	33.3	82.6	14.1	3.4	NE	1012.0
Jurong Island	—	23.7	28.0	33.9	74.0	13.6	1.7	N	1012.3
Choa Chu Kang (South)	—	23.4	27.4	33.1	88.1	15.2	2.6	NNE	1012.5
Khatib	184.4	22.2	27.8	34.0	77.1	11.6	1.8	NNE	1012.7

■ No Data

— Defective Data

March 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	6.2	25.4	29.0	34.1	74.7	12.4	3.2	NE	1011.6
Paya Lebar	—	25.1		35.5		14.4	4.2	NE	1011.1
Tengah	86.7	23.9	28.4	35.3	77.6	14.4	3.2	NNE	1011.0
Seletar	39.2	25.1	29.1	34.9	72.3	15.4	4.3	NNE	1011.2
Sembawang	132.9	23.8	28.6	34.1	78.6	12.3	3.4	NE	1011.1
Automatic Meteorological Stations									
Tai Seng	55.4	25.4	29.0	33.7	74.9	13.1	3.0	ENE	1012.1
Jurong (West)	109.2	23.7	28.2	34.6	72.3	25.2	2.1	NE	
Clementi	76.0	24.4	28.3	35.0	78.8	11.7	2.0	NE	
Sentosa Island	69.8	23.0	29.0	34.2	68.0	12.6	2.2	NNE	1012.1
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	66.4	23.5	28.8	32.1	76.0	17.3	4.8	N	1011.4
Admiralty	54.8	24.3	28.4	35.0	85.2	14.7	3.3	NE	
Pulau Ubin	29.8	23.2	28.1	34.1	86.2	11.0	2.9	NNW	1012.1
East Coast Parkway	21.6	26.2	28.8	33.2	79.0	14.4	2.9	NNE	1012.1
Marina Barrage	27.8	24.8	29.3	34.7	74.0	12.6	2.7	NNE	1011.9
Ang Mo Kio	39.4	24.3	28.5	34.7	74.7	11.1	2.0	NE	1012.1
Newton	119.0	24.1	28.4	34.2	73.9	12.9	2.0	E	
Tuas South	102.6	24.2	29.0	34.8	74.5	12.0	1.5	NE	1011.9
Pasir Panjang	85.4	23.2	29.1	33.9	80.2	16.4	3.0	NE	1011.7
Jurong Island	106.6	23.9	29.1	34.8	71.5	11.5	1.9	N	1011.5
Choa Chu Kang (South)	49.6	25.1	28.6	34.8	88.2	12.0	2.2	NNE	1011.9
Khatib	114.8	23.4	28.9	34.9	74.5	10.3	1.7	NE	1012.3

■ No Data

— Defective Data

April 2016

Station	Rain	Air Temperature			RH	Wind		Prevailing	Pressure
	Total	Min	Average	Max	Average	Max	Average	Direction	Average
	mm	°C	°C	°C	%	m/s	m/s		hPa
Manned Meteorological Stations									
Changi	89.8	25.3	29.4	35.0	75.6	12.7	2.3	NE	1010.0
Paya Lebar	175.8	24.2		36.5		11.3	2.7	NE	1009.6
Tengah	193.3	24.0	28.5	36.2	80.7	14.4	2.2	N	1009.4
Seletar	100.0	25.4	29.7	36.7	73.3	13.4	2.9	NE	1009.6
Sembawang	190.1	23.5	28.8	35.1	81.2	13.9	2.0	NE	1009.5
Automatic Meteorological Stations									
Tai Seng	108.2	25.3	29.7	35.4	74.9	10.6	1.8	ENE	1010.5
Jurong (West)	225.2	23.7	28.7	35.1	69.8	14.9	1.8	ENE	
Clementi	203.8	23.4	28.8	36.4	79.7	10.4	1.5	NE	
Sentosa Island	110.8	23.8	29.3	35.3	71.4	11.0	2.0	E	1010.6
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	58.8	25.4	29.5	33.5	76.5	18.5	5.0	N	1009.9
Admiralty	116.4	24.0	29.1	36.3	84.9	12.1	2.3	NE	
Pulau Ubin	39.0	23.9	28.7	36.6	86.3	17.5	2.6	NW	1010.5
East Coast Parkway	128.6	24.9	29.4	33.6	80.2	12.7	2.5	NNE	1010.6
Marina Barrage	66.0	25.5	30.0	36.0	75.3	10.3	1.7	NE	1010.3
Ang Mo Kio	280.6	24.0	29.1	35.8	75.5	18.6	1.5	ENE	1010.5
Newton	161.0	24.5	28.9	34.4	74.8	13.3	1.8	E	
Tuas South	101.0	23.8	29.7	35.6	74.8	17.7	1.4	NE	1010.4
Pasir Panjang	182.6	23.5	29.7	35.3	81.2	17.1	2.4	NE	1010.1
Jurong Island	125.8	24.2	29.7	35.6	73.1	14.9	2.2	NE	1010.0
Choa Chu Kang (South)	187.2	24.4	28.7	35.7	85.1	13.1	1.4	N	1010.4
Khatib	241.2	23.7	28.9	35.7	70.9	10.2	1.2	NE	1010.7

■ No Data

— Defective Data

8.2. May to Aug

May 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	193.8	23.9	29.3	34.6	77.4	14.9	2.1	SSW	1009.4
Paya Lebar	186.8	25.0		36.5		15.4	2.3	S	1009.0
Tengah	247.1	24.2	28.3	36.1	82.2	15.4	1.9	N	1008.9
Seletar	308.2	24.3	29.6	36.1	76.2	17.5	2.3	E	1009.0
Sembawang	234.1	22.1	28.4	35.3	83.5	16.5	2.0	W	1009.0
Automatic Meteorological Stations									
Tai Seng	200.4	24.7	29.8	35.5	75.9	12.6	1.5	SSW	1009.9
Jurong (West)	346.6	23.2	28.5	35.4	73.2	20.4	1.8	N	
Clementi	164.8	23.7	28.9	35.9	80.2	12.8	1.2	NE	
Sentosa Island	173.4	24.0	29.3	35.3	73.2	13.2	1.9	E	1010.0
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	92.0	24.7	29.5	34.0	76.5	23.7	5.4	S	1009.3
Admiralty	211.0	23.7	28.8	35.5	87.0	16.1	1.8	N	
Pulau Ubin	145.4	23.7	28.5	35.7	88.8	12.0	2.6	NW	1009.8
East Coast Parkway	152.2	24.4	29.4	33.2	80.5	14.9	2.7	ESE	1010.0
Marina Barrage	207.2	24.7	30.0	35.9	76.2	14.6	1.8	ESE	1009.8
Ang Mo Kio	225.6	24.1	29.2	35.6	76.4	17.9	1.4	W	1009.9
Newton	156.4	24.0	28.8	34.5	74.0	15.1	1.8	ESE	
Tuas South	187.4	23.7	29.5	34.4	76.3	15.0	1.6	SSW	1009.9
Pasir Panjang	116.6	24.1	29.7	34.2	82.4	23.5	2.5	NE	1009.6
Jurong Island	121.4	23.7	29.7	34.1	73.5	16.9	2.3	WSW	1009.5
Choa Chu Kang (South)	238.4	24.2	28.7	35.7	84.0	12.9	1.2	N	1009.8
Khatib	257.0	23.7	28.6	35.5	—	11.2	1.0	NW	1010.1

■ No Data

— Defective Data

June 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	162.8	22.5	28.5	33.4	77.6	14.1	2.0	SSW	1010.4
Paya Lebar	165.8	22.7		35.4		13.4	2.3	S	1010.0
Tengah	330.8	22.6	27.2	34.9	84.7	13.9	1.9	N	1009.9
Seletar	332.4	23.1	28.7	35.7	78.0	15.4	2.3	SSE	1010.0
Sembawang	268.8	22.3	27.5	34.5	84.2	15.4	1.9	W	1010.0
Automatic Meteorological Stations									
Tai Seng	148.6	23.1	29.2	34.9	75.8	13.9	1.5	SSW	1010.9
Jurong (West)	330.6	22.2	27.9	33.7	68.4	17.5	1.8	N	
Clementi	206.8	22.5	28.1	34.2	80.9	10.6	1.4	SSE	
Sentosa Island	253.0	22.4	28.6	33.3	74.0	12.2	1.8	E	1011.0
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	153.4	23.1	29.0	32.4	76.4	26.1	5.6	S	1010.3
Admiralty	115.8	22.6	28.1	34.3	87.4	15.0	1.6	S	
Pulau Ubin	235.6	22.6	27.6	34.7	91.4	13.9	2.4	NW	1010.9
East Coast Parkway	75.0	23.7	29.0	31.7	80.0	27.9	3.0	S	1011.0
Marina Barrage	145.8	23.2	29.2	34.4	77.2	13.3	2.1	SSW	1010.8
Ang Mo Kio	182.4	22.2	28.4	34.5	76.6	14.8	1.3	W	1011.0
Newton	152.2	22.3	28.1	33.8	74.9	13.4	1.8	SSW	
Tuas South	281.6	23.5	28.7	33.5	76.8	18.4	1.6	SSW	1010.9
Pasir Panjang	253.2	22.7	29.1	33.2	82.8	23.0	2.5	SSW	1010.6
Jurong Island	249.8	23.0	29.1	33.8	74.1	16.0	2.3	WSW	1010.5
Choa Chu Kang (South)	358.6	23.0	27.9	34.6	86.3	27.0	1.2	N	1010.8
Khatib	261.0	22.4	27.7	34.9	—	10.3	1.0	S	1011.1

■ No Data

— Defective Data

July 2016

Station	Rain	Air Temperature			RH	Wind		Prevailing	Pressure
	Total	Min	Average	Max	Average	Max	Average	Direction	Average
	mm	°C	°C	°C	%	m/s	m/s		hPa
Manned Meteorological Stations									
Changi	168.6	22.5	28.4	33.4	77.1	14.6	2.2	S	1009.8
Paya Lebar	194.7	23.2		34.1		12.9	2.6	S	1009.4
Tengah	426.0	22.3	27.7	35.2	82.6	15.9	2.1	N	1009.3
Seletar	260.8	22.2	28.7	36.0	76.7	17.5	2.5	S	1009.3
Sembawang	205.8	22.3	27.8	34.6	82.1	19.0	2.1	S	1009.4
Automatic Meteorological Stations									
Tai Seng	209.6	23.3	28.9	34.3	76.6	22.8	1.5	SSW	1010.3
Jurong (West)	322.4	22.2	27.9	33.7	69.4	17.3	1.9	SE	
Clementi	275.6	21.3	28.0	34.3	81.4	10.5	1.6	NNW	
Sentosa Island	220.0	23.4	28.3	33.7	75.4	12.4	1.7	ESE	1010.5
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	199.7	23.6	28.7	32.5	78.1	25.8	5.4	S	1009.8
Admiralty	256.6	22.2	28.2	34.7	84.9	14.3	1.8	S	
Pulau Ubin	—	22.7	27.7	34.2	90.6	12.4	2.4	NW	1010.3
East Coast Parkway	158.6	23.0	28.8	32.0	80.5	15.8	3.1	SE	1010.4
Marina Barrage	207.0	23.2	29.0	35.6	77.2	20.4	2.5	NNW	1010.2
Ang Mo Kio	179.2	21.2	28.3	34.6	76.4	18.2	1.5	E	1010.4
Newton	165.4	22.2	27.9	33.2	75.5	15.1	2.0	ESE	
Tuas South	288.8	23.6	28.0	34.1	79.4	15.1	1.6	SSW	1010.3
Pasir Panjang	271.0	22.3	28.9	33.6	83.7	18.5	2.6	ESE	1010.0
Jurong Island	—	21.9	29.0	33.5	75.1	12.8	2.5	ESE	1009.9
Choa Chu Kang (South)	431.6	22.5	28.0	34.5	78.2	28.4	1.3	N	1010.2
Khatib	181.2	22.2	27.9	34.7	—	11.1	1.1	S	1010.5

■ No Data

— Defective Data

August 2016

Station	Rain	Air Temperature			RH	Wind		Prevailing	Pressure
	Total	Min	Average	Max	Average	Max	Average	Direction	Average
	mm	°C	°C	°C	%	m/s	m/s		hPa
Manned Meteorological Stations									
Changi	139.2	22.1	28.9	33.8	74.0	18.1	2.3	SSW	1009.4
Paya Lebar	115.1	22.4		34.2		17.0	3.1	S	1009.0
Tengah	213.0	21.5	28.3	34.2	78.8	18.0	2.5	S	1008.9
Seletar	95.6	22.9	29.7	35.4	70.7	19.0	2.9	S	1008.9
Sembawang	131.8	21.6	28.4	33.8	79.6	18.5	2.3	S	1009.0
Automatic Meteorological Stations									
Tai Seng	172.8	22.3	29.5	33.6	73.0	19.7	2.0	SSW	1009.9
Jurong (West)	85.6	22.1	28.6	32.9	69.8	19.5	2.2	S	
Clementi	97.4	22.2	28.7	33.4	77.0	11.5	1.5	SE	
Sentosa Island	111.6	22.1	28.8	33.3	71.7	18.0	2.2	SSW	1010.1
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	106.6	23.7	29.0	31.5	77.0	27.1	6.2	S	1009.4
Admiralty	163.4	21.9	28.8	33.7	80.4	18.1	2.0	S	
Pulau Ubin	—	22.2	28.2	34.2	87.4	12.1	2.4	W	1010.0
East Coast Parkway	112.2	22.6	29.1	31.9	78.7	18.7	4.1	SSW	1010.0
Marina Barrage	97.0	22.9	29.5	34.5	74.4	17.5	2.8	SSW	1009.8
Ang Mo Kio	133.6	22.3	29.1	34.1	70.9	19.0	1.7	SW	1009.9
Newton	—	21.6	28.4	32.2	72.9	14.3	2.3	SSW	
Tuas South	145.8	23.0	29.3	33.1	73.9	18.0	2.0	SSW	1009.9
Pasir Panjang	79.0	22.6	29.3	32.8	80.8	23.9	2.8	ESE	1009.6
Jurong Island	115.4	23.0	29.1	33.1	73.6	15.2	3.0	SSE	1009.5
Choa Chu Kang (South)	192.2	22.1	28.8	33.7	74.6	15.5	1.4	SSE	1009.8
Khatib	92.0	22.1	28.5	33.9	—	11.4	1.3	S	1010.1

■ No Data

— Defective Data

8.3. Sep to Dec

September 2016

Station	Rain	Air Temperature			RH		Wind		Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	118.9	22.6	28.3	34.4	73.9	15.0	1.9	SSW	1010.0
Paya Lebar	194.9	22.2		36.3		15.9	2.7	W	1009.6
Tengah	148.9	21.8	28.0	35.3	79.3	14.9	2.3	WSW	1009.5
Seletar	107.2	23.0	28.9	36.8	72.9	20.1	2.5	WSW	1009.5
Sembawang	93.5	22.4	27.8	35.3	80.1	17.0	2.2	S	1009.5
Automatic Meteorological Stations									
Tai Seng	180.4	22.9	29.0	35.4	72.8	22.0	1.7	SSW	1010.5
Jurong (West)	140.0	22.2	27.9	33.2	69.0	18.9	2.1	WNW	
Clementi	182.0	21.8	28.2	34.9	77.7	12.5	1.9	NNW	
Sentosa Island	187.2	22.0	28.5	33.7	71.1	13.0	1.6	S	1010.6
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	203.4	23.1	28.8	31.6	76.3	28.6	6.9	W	1009.9
Admiralty	93.8	22.7	28.2	34.5	82.6	16.6	2.0	S	
Pulau Ubin	118.8	22.2	27.5	34.9	87.3	12.0	2.3	WNW	1010.4
East Coast Parkway	172.4	22.4	28.6	33.7	78.6	19.4	3.1	S	1010.5
Marina Barrage	212.0	22.1	29.0	35.2	73.6	17.3	3.7	NNW	1010.3
Ang Mo Kio	142.6	22.8	28.4	35.2	72.8	13.7	1.5	W	1010.5
Newton	—	—	—	—	—	—	—	—	
Tuas South	133.0	24.0	28.8	33.1	74.6	17.8	2.1	SSW	1010.5
Pasir Panjang	143.0	21.8	28.9	33.0	80.2	22.2	3.0	SSW	1010.2
Jurong Island	156.0	22.7	28.7	33.8	72.9	15.4	2.1	WSW	1010.1
Choa Chu Kang (South)	148.6	22.6	28.2	34.3	74.7	12.1	1.3	N	1010.4
Khatib	103.4	22.4	28.0	35.8	—	13.0	1.2	S	1010.7

■ No Data

— Defective Data

October 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	181.0	21.6	28.3	34.6	72.0	14.2	1.8	W	1009.4
Paya Lebar	240.4	22.7		35.5		15.4	2.6	W	1009.1
Tengah	289.1	22.3	28.0	34.9	80.4	14.9	2.3	SW	1009.0
Seletar	215.4	23.3	28.8	35.5	73.8	17.5	2.3	WSW	1009.0
Sembawang	201.5	22.0	27.7	34.5	82.8	18.5	2.5	W	1009.0
Automatic Meteorological Stations									
Tai Seng	192.8	23.0	28.9	34.5	73.9	13.5	1.6	WNW	1009.9
Jurong (West)	214.2	21.7	27.7	32.5	70.9	18.3	2.2	WNW	
Clementi	—	22.5	27.8	34.1	80.3	11.8	2.2	NNW	
Sentosa Island	196.0	23.2	28.4	33.7	71.6	13.3	1.6	WNW	1010.1
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	258.0	23.0	28.5	31.0	78.1	31.9	7.6	W	1009.4
Admiralty	245.8	22.2	28.1	33.8	82.9	15.7	2.2	WSW	
Pulau Ubin	182.2	21.9	27.5	35.5	87.4	11.7	2.3	WNW	1009.9
East Coast Parkway	167.6	23.3	28.5	33.4	78.9	18.2	2.9	SW	1010.0
Marina Barrage	255.8	23.0	28.8	34.6	75.2	16.2	3.9	NNW	1009.8
Ang Mo Kio	220.0	22.4	28.3	34.4	74.2	14.2	1.6	WSW	1010.0
Newton	—	—	—	—	—	—	—	—	
Tuas South	202.2	23.0	28.7	32.8	76.4	20.2	2.3	WNW	1010.0
Pasir Panjang	219.4	21.9	28.7	33.0	81.8	23.5	3.4	NE	1009.6
Jurong Island	137.8	22.5	28.8	33.5	73.7	15.9	1.9	WSW	1009.6
Choa Chu Kang (South)	221.0	22.6	28.1	33.9	78.8	14.8	1.3	W	1009.9
Khatib	184.0	22.8	27.9	34.6	—	10.9	1.1	W	1010.2

■ No Data

— Defective Data

November 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	290.2	22.7	27.4	32.6	77.6	12.7	1.7	NNW	1009.7
Paya Lebar	355.7	22.3		34.2		13.4	2.3	W	1009.4
Tengah	231.6	22.4	27.1	34.7	85.0	13.4	2.1	N	1009.3
Seletar	169.6	23.0	27.9	35.4	79.6	14.4	2.2	N	1009.3
Sembawang	206.7	21.9	27.0	34.1	87.2	15.4	2.4	N	1009.3
Automatic Meteorological Stations									
Tai Seng	413.2	23.2	27.9	33.8	81.2	20.1	1.5	E	1010.2
Jurong (West)	169.6	22.6	26.9	33.4	—	16.5	1.8	N	
Clementi	394.0	22.7	27.1	33.4	84.7	12.4	2.7	NNW	
Sentosa Island	—	23.0	27.7	32.8	78.8	11.8	1.7	SSW	1010.4
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	317.2	22.4	27.6	30.4	80.9	28.7	6.0	W	1009.7
Admiralty	160.6	22.1	27.2	34.0	90.8	16.1	2.0	N	
Pulau Ubin	272.2	22.1	26.8	34.4	92.3	12.4	2.3	NE	1010.2
East Coast Parkway	187.8	23.6	27.8	31.9	84.3	18.3	2.2	N	1010.3
Marina Barrage	244.4	22.9	28.0	34.1	81.7	16.4	4.2	N	1010.1
Ang Mo Kio	266.2	22.8	27.4	34.3	82.1	17.7	1.3	W	1010.3
Newton	—	—	—	—	—	—	—	—	
Tuas South	200.0	23.7	27.9	32.3	79.8	14.8	1.8	NNE	1010.2
Pasir Panjang	197.4	23.3	27.9	32.1	86.9	20.7	2.7	NE	1009.9
Jurong Island	326.6	22.7	27.9	32.5	78.4	14.1	1.8	WSW	1009.8
Choa Chu Kang (South)	239.4	23.1	27.2	34.8	93.0	24.7	1.2	N	1010.2
Khatib	201.4	22.2	27.2	34.1	—	9.6	1.0	NW	1010.5

■ No Data

— Defective Data

December 2016

Station	Rain	Air Temperature			RH	Wind			Pressure
	Total	Min	Average	Max	Average	Max	Average	Prevailing	Average
	mm	°C	°C	°C	%	m/s	m/s	Direction	hPa
Manned Meteorological Stations									
Changi	292.6	23.0	27.4	33.6	72.8	13.1	2.0	NNW	1009.5
Paya Lebar	235.9	23.1		35.6		16.5	2.8	N	1009.1
Tengah	196.8	22.3	27.3	35.4	82.4	16.5	2.5	N	1009.0
Seletar	255.2	23.6	27.9	35.9	77.1	14.9	2.5	NNW	1009.0
Sembawang	220.3	22.3	27.2	34.8	83.2	13.9	2.5	W	1009.1
Automatic Meteorological Stations									
Tai Seng	268.2	23.3	27.9	34.3	79.0	13.2	1.9	NNE	1010.0
Jurong (West)	120.4	22.7	27.0	34.1	72.5	16.7	2.2	N	
Clementi	205.0	22.8	27.3	34.7	82.7	11.6	3.0	NW	
Sentosa Island	—	—	—	—	—	—	—	—	—
Boon Lay (East)	—	—	—	—	—	—	—	—	—
Semakau Island	—	23.4	27.9	32.3	80.8	23.1	6.5	W	1009.4
Admiralty	186.0	22.8	27.2	34.2	87.8	13.0	2.5	N	
Pulau Ubin	231.2	22.7	26.8	34.0	90.5	10.5	2.2	N	1010.0
East Coast Parkway	223.4	23.7	27.8	32.7	82.2	13.1	2.2	N	1010.1
Marina Barrage	184.8	23.5	28.2	34.3	78.2	14.3	4.8	NNW	1009.8
Ang Mo Kio	190.4	23.0	27.4	34.7	79.8	11.7	1.6	W	1010.1
Newton	177.4	22.6	27.1	34.0	74.1	12.7	1.9	NW	
Tuas South	108.2	23.9	27.9	33.3	77.9	15.5	1.9	NNE	1010.0
Pasir Panjang	134.0	23.3	28.0	33.2	84.3	19.8	3.3	NE	1009.7
Jurong Island	100.8	23.3	28.4	34.2	74.3	12.4	1.8	NNW	1009.6
Choa Chu Kang (South)	187.2	23.1	27.4	34.9	78.3	21.7	1.6	N	1009.9
Khatib	193.0	22.8	27.3	34.7	—	11.2	1.3	NNW	1010.2

■ No Data

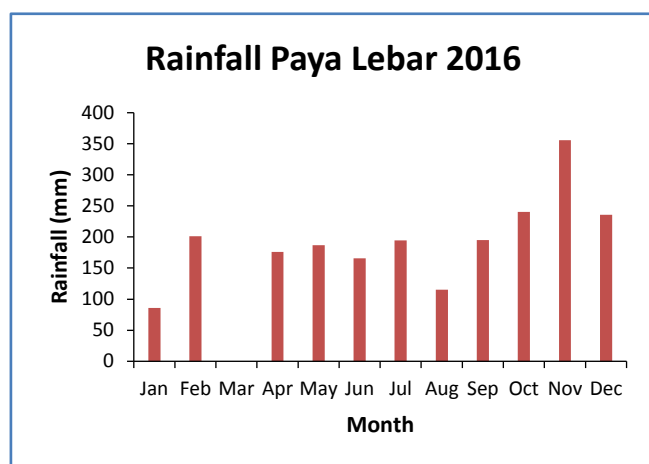
— Defective Data

9. Weather Statistics for Manned Meteorological Station

9.1. Monthly Observation

S06 Paya Lebar 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.3	23.8	25.1	24.2	25.0	22.7	23.2	22.4	22.2	22.7	22.3	23.1
Average Daily Min Temperature (°C)	26.1	25.5	26.5	26.8	26.6	26.2	25.8	26.2	25.3	25.3	25.0	25.1
Average Temperature (°C)	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily Max Temperature (°C)	32.7	31.9	33.8	34.5	33.9	32.4	32.2	32.9	32.9	32.8	31.8	32.6
Max Temperature	34.5	34.1	35.5	36.5	36.5	35.4	34.1	34.2	36.3	35.5	34.2	35.6
Average Dew Point Temperature (°C)	—	—	—	—	—	—	—	—	—	—	—	—
Min Relative Humidity (%)	—	—	—	—	—	—	—	—	—	—	—	—
Average Relative Humidity (%)	—	—	—	—	—	—	—	—	—	—	—	—
Average Wind Speed (m/s)	3.9	4.9	4.2	2.7	2.3	2.3	2.6	3.1	2.7	2.6	2.3	2.8
Prevailing Wind Direction	NE	NE	NE	NE	S	S	S	S	W	W	W	N
Maximum Gust (m/s)	15.4	15.9	14.4	11.3	15.4	13.4	12.9	17.0	15.9	15.4	13.4	16.5
Total Rainfall (mm)	86.0	201.1	—	175.8	186.8	165.8	194.7	115.1	194.9	240.4	355.7	235.9
Highest Daily Rainfall (mm)	32.4	102.4	22.9	44.9	43.8	74.0	64.1	17.4	95.6	71.9	54.2	73.4

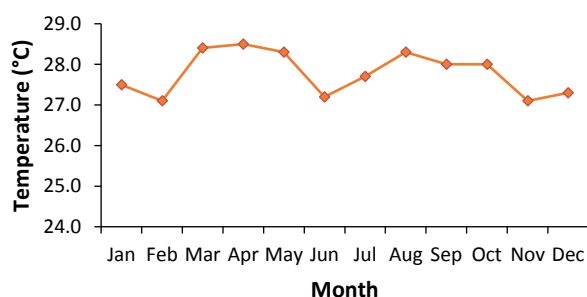


- No Data
- Defective Data

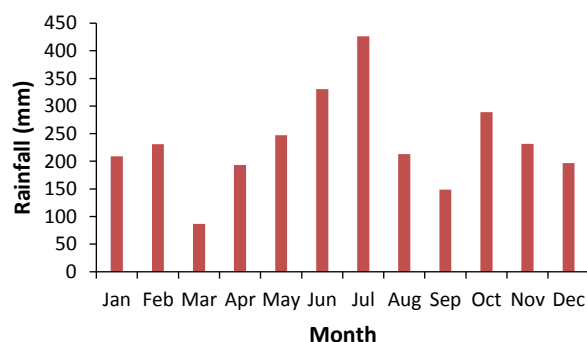
S23 Tengah 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.5	22.3	23.9	24.0	24.2	22.6	22.3	21.5	21.8	22.3	22.4	22.3
Average Daily Min Temperature (°C)	24.4	23.9	24.9	25.0	24.9	24.2	24.0	24.2	23.7	24.0	23.0	23.8
Average Temperature (°C)	27.5	27.1	28.4	28.5	28.3	27.2	27.7	28.3	28.0	28.0	27.1	27.3
Average Daily Max Temperature (°C)	32.5	31.8	34.0	34.5	34.0	32.0	32.1	32.8	32.6	32.3	31.9	32.6
Max Temperature	34.8	34.0	35.3	36.2	36.1	34.9	35.2	34.2	35.3	34.9	34.7	35.4
Average Dew Point Temperature (°C)	24.3	23.4	23.8	24.6	24.8	24.2	24.3	24.1	23.8	24.0	24.2	23.8
Min Relative Humidity (%)	—	—	—	—	—	—	—	—	—	—	—	—
Average Relative Humidity (%)	83.6	81.2	77.6	80.7	82.2	84.7	82.6	78.8	79.3	80.4	85.0	82.4
Average Wind Speed (m/s)	2.9	3.6	3.2	2.2	1.9	1.9	2.1	2.5	2.3	2.3	2.1	2.5
Prevailing Wind Direction	NNE	NNE	NNE	N	N	N	N	S	WSW	SW	N	N
Maximum Gust (m/s)	12.9	15.4	14.4	14.4	15.4	13.9	15.9	18.0	14.9	14.9	13.4	16.5
Total Rainfall (mm)	209.1	231.1	86.7	193.3	247.1	330.8	426.0	213.0	148.9	289.1	231.6	196.8
Highest Daily Rainfall (mm)	37.3	83.0	32.2	49.3	45.1	57.5	62.5	65.8	58.8	63.2	51.2	39.9

**Average Temperature Tengah
2016**



Rainfall Tengah 2016

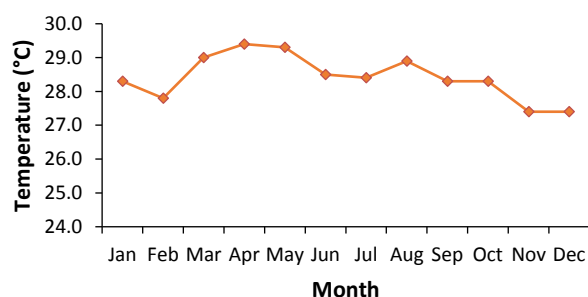


■ No Data
— Defective Data

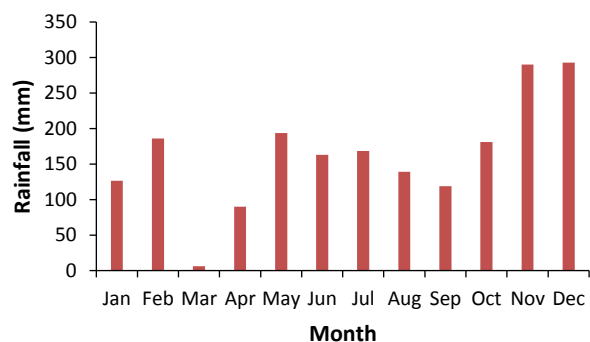
S24 Changi 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.9	23.3	25.4	25.3	23.9	22.5	22.5	22.1	22.6	21.6	22.7	23.0
Average Daily Min Temperature (°C)	26.0	25.6	26.6	26.7	26.5	26.1	25.8	26.2	25.1	25.2	24.9	24.7
Average Temperature (°C)	28.3	27.8	29.0	29.4	29.3	28.5	28.4	28.9	28.3	28.3	27.4	27.4
Average Daily Max Temperature (°C)	31.8	31.1	33.1	33.4	33.0	31.6	31.7	31.8	32.0	32.1	30.7	31.6
Max Temperature	32.8	32.7	34.1	35.0	34.6	33.4	33.4	33.8	34.4	34.6	32.6	33.6
Average Dew Point Temperature (°C)	24.3	23.7	23.9	24.5	24.7	24.1	23.9	23.6	22.9	22.5	22.9	21.7
Min Relative Humidity (%)	55.0	55.0	47.0	46.0	48.0	45.0	48.0	41.0	33.0	38.0	46.0	34.0
Average Relative Humidity (%)	79.6	78.8	74.7	75.6	77.4	77.6	77.1	74.0	73.9	72.0	77.6	72.8
Average Wind Speed (m/s)	2.8	3.3	3.2	2.3	2.1	2.0	2.2	2.3	1.9	1.8	1.7	2.0
Prevailing Wind Direction	NE	NE	NE	NE	SSW	SSW	S	SSW	SSW	W	NNW	NNW
Maximum Gust (m/s)	18.0	12.7	12.4	12.7	14.9	14.1	14.6	18.1	15.0	14.2	12.7	13.1
Total Rainfall (mm)	126.6	186.0	6.2	89.8	193.8	162.8	168.6	139.2	118.9	181.0	290.2	292.6
Highest Daily Rainfall (mm)	39.6	71.8	2.4	18.2	54.8	67.8	59.4	30.6	34.0	75.4	65.6	73.0

**Average Temperature Changi
2016**



Rainfall Changi 2016

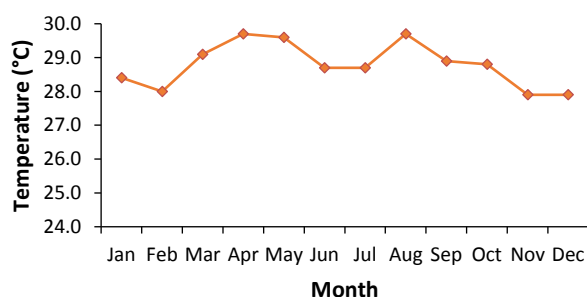


■ No Data
— Defective Data

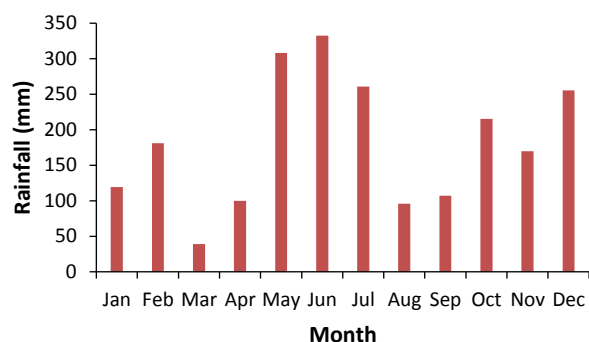
S25 Seletar 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.6	22.2	25.1	25.4	24.3	23.1	22.2	22.9	23.0	23.3	23.0	23.6
Average Daily Min Temperature (°C)	26.0	25.5	26.4	26.8	26.4	25.9	25.5	26.3	25.3	25.6	25.1	25.1
Average Temperature (°C)	28.4	28.0	29.1	29.7	29.6	28.7	28.7	29.7	28.9	28.8	27.9	27.9
Average Daily Max Temperature (°C)	32.3	31.5	33.7	34.8	34.3	32.8	33.1	33.9	33.7	33.1	31.9	32.6
Max Temperature	34.4	33.5	34.9	36.7	36.1	35.7	36.0	35.4	36.8	35.5	35.4	35.9
Average Dew Point Temperature (°C)	23.9	23.3	23.3	24.1	24.7	24.2	24.0	23.5	23.2	23.3	23.8	23.3
Min Relative Humidity (%)	—	—	—	—	—	—	—	—	—	—	—	—
Average Relative Humidity (%)	77.6	76.2	72.3	73.3	76.2	78.0	76.7	70.7	72.9	73.8	79.6	77.1
Average Wind Speed (m/s)	3.8	4.7	4.3	2.9	2.3	2.3	2.5	2.9	2.5	2.3	2.2	2.5
Prevailing Wind Direction	N	NNE	NNE	NE	E	SSE	S	S	WSW	WSW	N	NNW
Maximum Gust (m/s)	17.5	19.0	15.4	13.4	17.5	15.4	17.5	19.0	20.1	17.5	14.4	14.9
Total Rainfall (mm)	119.3	181.2	39.2	100.0	308.2	332.4	260.8	95.6	107.2	215.4	169.6	255.2
Highest Daily Rainfall (mm)	43.0	77.8	26.4	17.0	62.2	86.6	54.6	38.2	18.0	53.8	20.4	52.6

Average Temperature Seletar 2016



Rainfall Seletar 2016

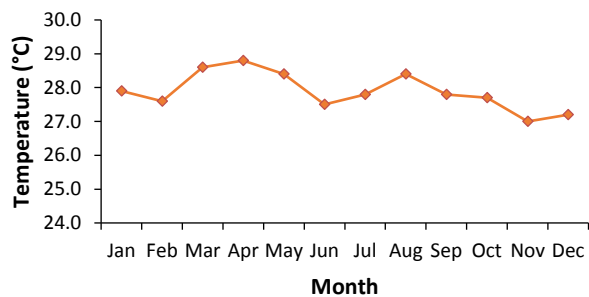


■ No Data
— Defective Data

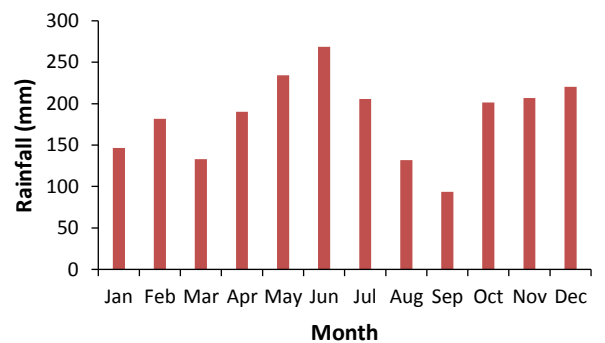
S80 Sembawang 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.2	22.6	23.8	23.5	22.1	22.3	22.3	21.6	22.4	22.0	21.9	22.3
Average Daily Min Temperature (°C)	24.9	24.5	25.3	25.1	24.7	24.1	24.1	24.4	23.7	24.1	23.9	24.0
Average Temperature (°C)	27.9	27.6	28.6	28.8	28.4	27.5	27.8	28.4	27.8	27.7	27.0	27.2
Average Daily Max Temperature (°C)	32.0	31.5	33.1	33.9	33.6	31.8	32.1	32.7	32.6	32.3	31.4	32.0
Max Temperature	33.7	33.3	34.1	35.1	35.3	34.5	34.6	33.8	35.3	34.5	34.1	34.8
Average Dew Point Temperature (°C)	24.5	23.9	24.4	25.0	25.2	24.4	24.2	24.2	23.7	24.2	24.6	23.9
Min Relative Humidity (%)	—	—	—	—	—	—	—	—	—	—	—	—
Average Relative Humidity (%)	82.5	81.3	78.6	81.2	83.5	84.2	82.1	79.6	80.1	82.8	87.2	83.2
Average Wind Speed (m/s)	2.8	3.3	3.4	2.0	2.0	1.9	2.1	2.3	2.2	2.5	2.4	2.5
Prevailing Wind Direction	NE	NNE	NE	NE	W	W	S	S	S	W	N	W
Maximum Gust (m/s)	14.4	13.9	12.3	13.9	16.5	15.4	19.0	18.5	17.0	18.5	15.4	13.9
Total Rainfall (mm)	146.4	181.6	132.9	190.1	234.1	268.8	205.8	131.8	93.5	201.5	206.7	220.3
Highest Daily Rainfall (mm)	35.0	88.1	46.6	35.5	83.0	75.1	43.2	47.5	19.4	85.0	28.0	46.0

**Average Temperature
Sembawang 2016**



Rainfall Sembawang 2016

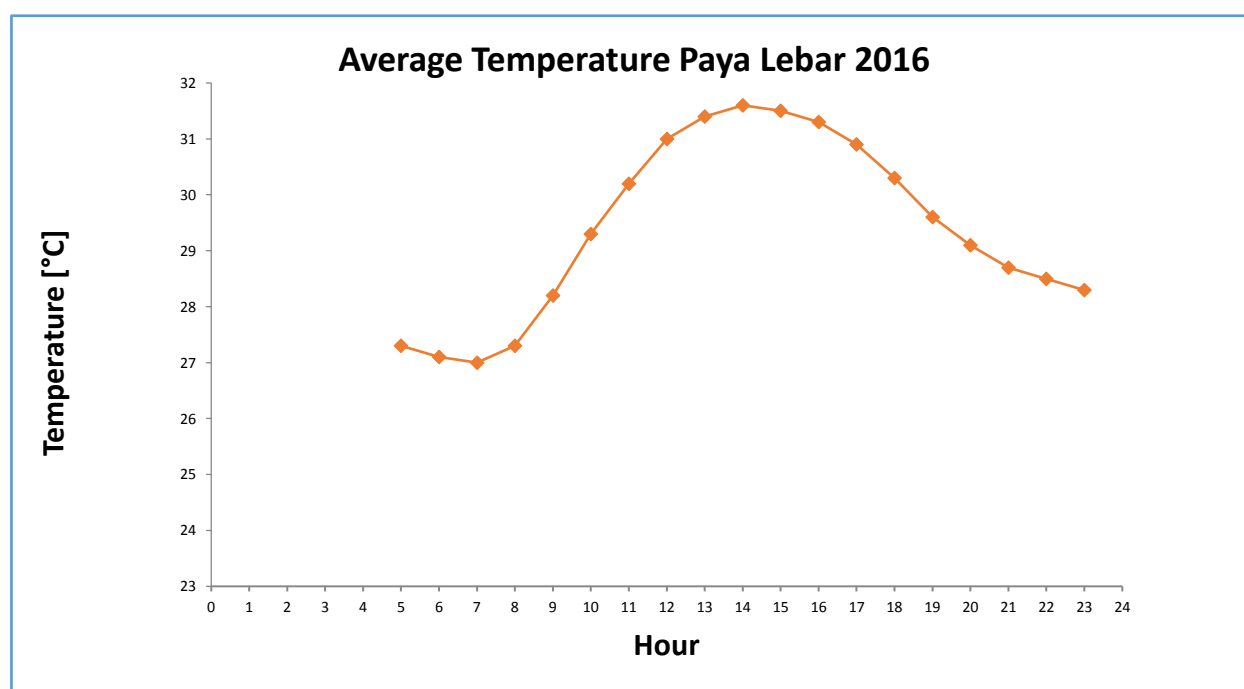


■ No Data
— Defective Data

9.2. Hourly Observation

S06 Paya Lebar 2016

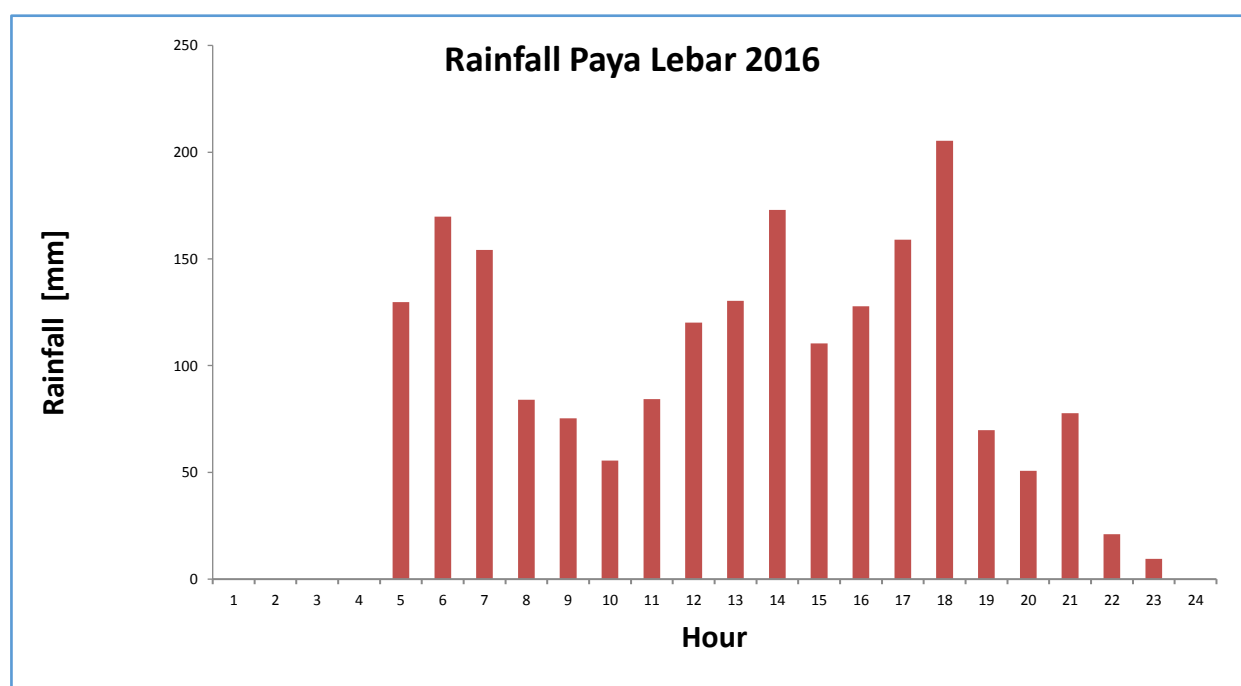
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)					23.3	23.1	23.3	23.3	23.9	24.3	23.7	24.0
Max Dry Bulb Temperature (°C)					29.8	29.8	29.5	29.8	31.2	32.0	33.4	35.0
Average Dry Bulb Temperature (°C)					27.3	27.1	27.0	27.3	28.2	29.3	30.2	31.0
Average Dew Point Temperature (°C)					24.7	24.6	24.5	24.6	24.6	24.5	24.3	24.2
Average Relative Humidity (%)					85.6	86.0	86.5	85.3	81.0	75.8	71.3	67.9
Average Wind Speed (m/s)					2.0	2.0	2.0	2.1	2.6	3.1	3.5	3.6
Max Gust (m/s)					13.4	15.9	17.0	14.4	12.3	10.8	13.4	13.9
Rainfall (mm)					129.7	169.8	154.2	84.1	75.4	55.5	84.3	120.2



- No Data
- Defective Data

S06 Paya Lebar 2016

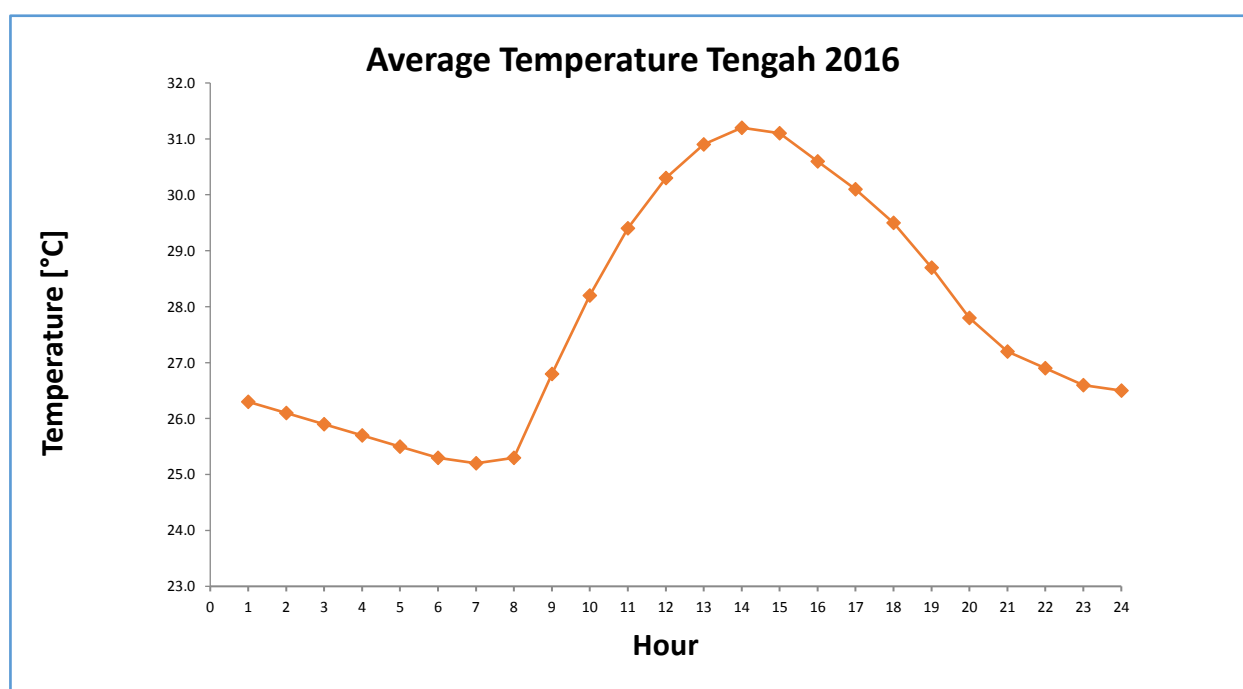
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	24.6	23.9	24.3	24.7	25.1	24.7	24.0	24.5	24.3	24.7	24.9	
Max Dry Bulb Temperature (°C)	35.1	36.0	36.3	36.1	35.8	34.4	33.4	32.7	31.9	31.7	31.3	
Average Dry Bulb Temperature (°C)	31.4	31.6	31.5	31.3	30.9	30.3	29.6	29.1	28.7	28.5	28.3	
Average Dew Point Temperature (°C)	24.1	24.1	24.0	24.0	23.9	24.0	24.1	24.2	24.4	24.6	24.6	
Average Relative Humidity (%)	66.0	65.3	65.6	66.6	67.7	69.8	72.8	75.9	78.1	79.7	80.9	
Average Wind Speed (m/s)	3.8	4.0	4.1	4.0	3.8	3.5	3.2	2.8	2.5	2.2	2.1	
Max Gust (m/s)	15.9	13.4	14.4	15.4	15.9	16.5	13.4	15.4	13.9	9.8	12.3	
Rainfall (mm)	130.3	173.0	110.4	127.8	159.0	205.4	69.8	50.7	77.8	21.1	9.5	



- No Data
- Defective Data

S23 Tengah 2016

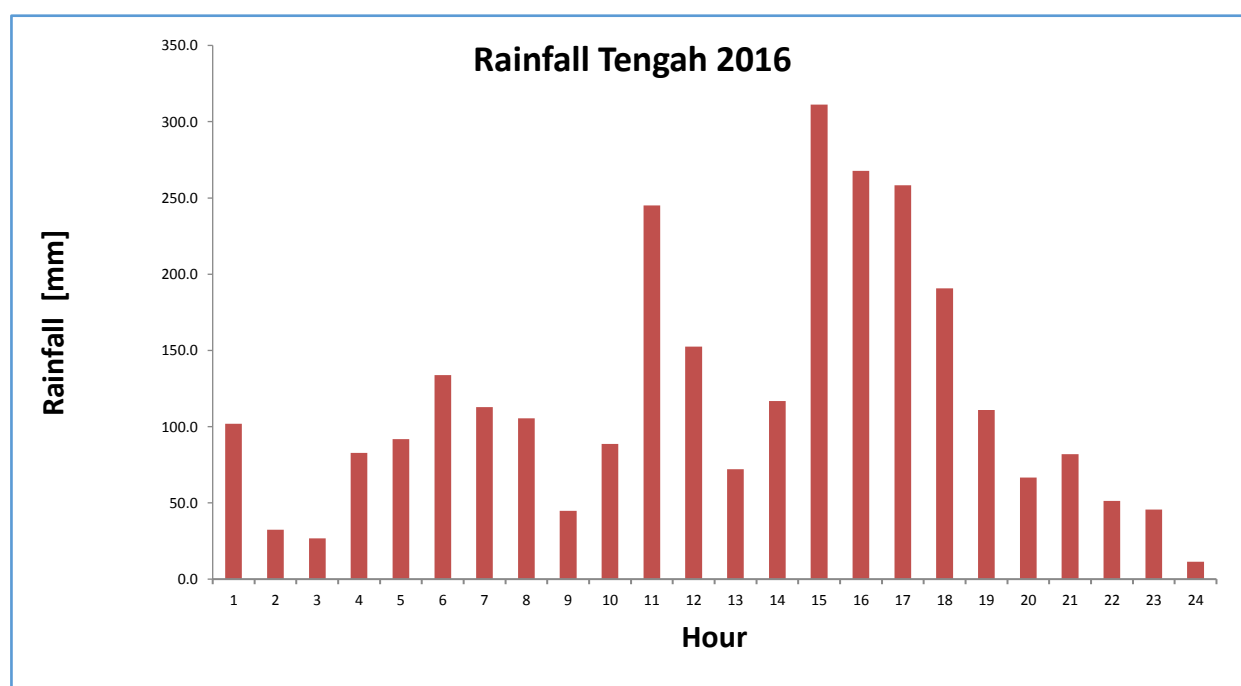
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	22.9	23.4	23.6	23.4	23.1	22.7	22.1	22.5	23.0	23.6	23.2	23.5
Max Dry Bulb Temperature (°C)	28.6	28.5	28.0	28.1	28.4	28.2	27.6	27.9	29.9	31.2	32.8	34.0
Average Dry Bulb Temperature (°C)	26.3	26.1	25.9	25.7	25.5	25.3	25.2	25.3	26.8	28.2	29.4	30.3
Average Dew Point Temperature (°C)	24.3	24.2	24.2	24.1	23.8	23.8	23.7	24.0	24.6	24.6	24.5	24.4
Average Relative Humidity (%)	88.9	89.6	90.4	90.9	90.8	91.3	91.7	92.4	88.2	81.0	75.4	71.3
Average Wind Speed (m/s)	—	—	—	—	1.4	1.5	1.4	1.4	1.9	2.6	2.9	3.1
Max Gust (m/s)	—	—	—	—	16.5	18.0	14.9	15.4	9.8	11.3	12.3	14.4
Rainfall (mm)	101.9	32.5	26.7	82.8	91.9	133.9	112.8	105.5	44.8	88.6	245.1	152.5



- No Data
- Defective Data

S23 Tengah 2016

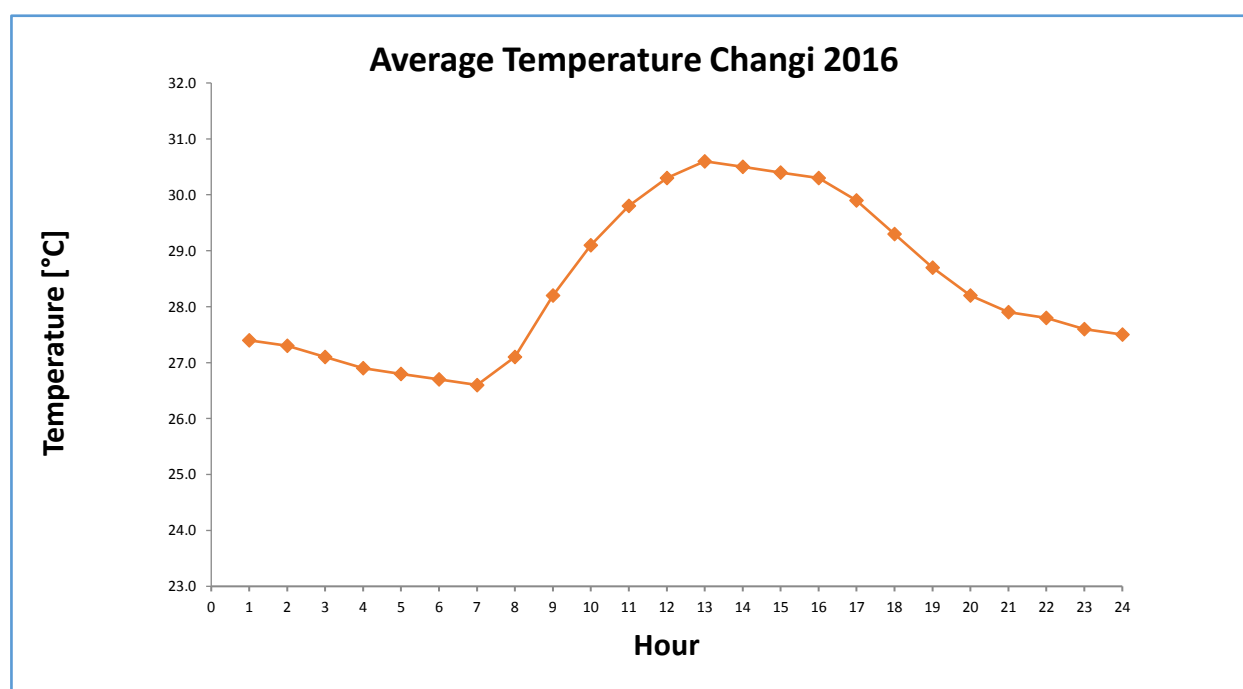
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.9	22.9	23.3	23.5	23.0	23.3	23.1	23.3	23.3	23.0	23.3	23.7
Max Dry Bulb Temperature (°C)	34.5	34.9	35.4	35.6	35.1	34.2	32.6	32.0	30.4	29.9	29.2	29.1
Average Dry Bulb Temperature (°C)	30.9	31.2	31.1	30.6	30.1	29.5	28.7	27.8	27.2	26.9	26.6	26.5
Average Dew Point Temperature (°C)	24.2	24.2	24.1	24.0	23.9	23.9	23.9	23.9	23.9	24.0	24.0	24.2
Average Relative Humidity (%)	68.6	67.5	67.4	69.1	70.6	73.0	76.3	79.7	82.6	84.4	86.0	87.7
Average Wind Speed (m/s)	3.3	3.5	3.4	3.4	3.1	2.7	2.4	2.0	1.9	1.7	1.6	—
Max Gust (m/s)	14.9	13.9	14.9	14.4	15.4	13.9	13.9	13.4	16.5	14.9	11.8	—
Rainfall (mm)	72.0	116.9	311.2	267.7	258.3	190.6	110.9	66.6	81.9	51.3	45.6	11.5



- No Data
- Defective Data

S24 Changi 2016

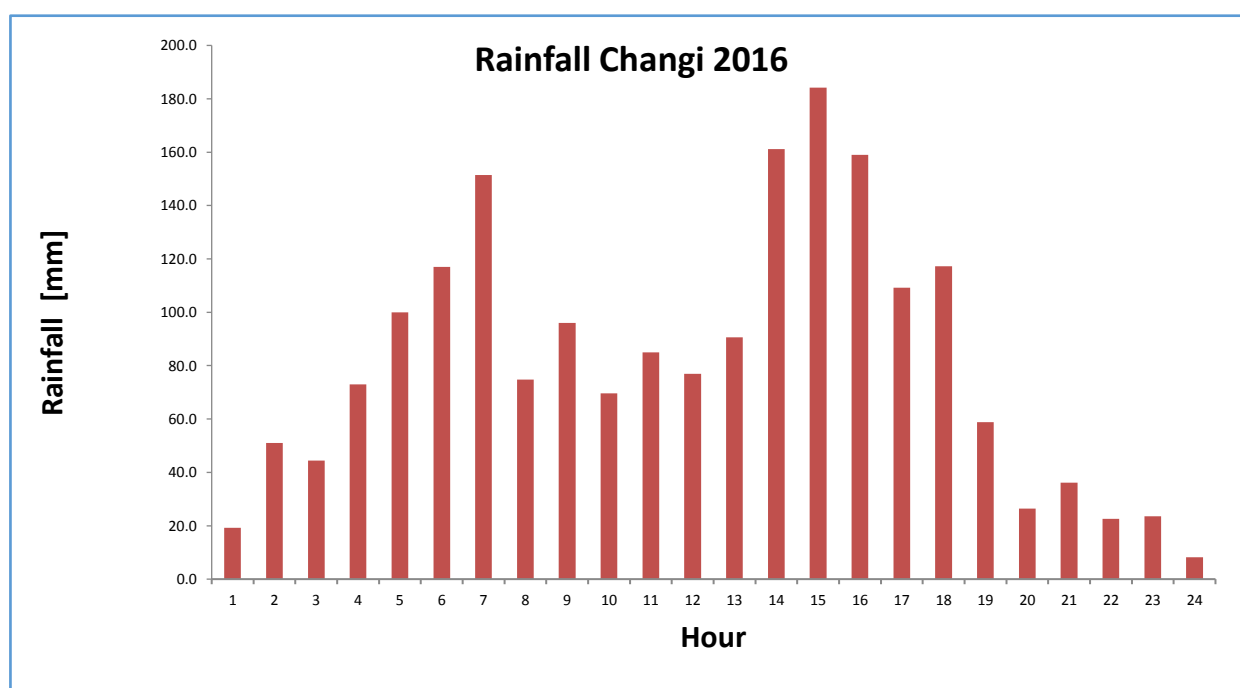
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.7	23.6	23.9	22.5	22.8	21.8	22.5	22.9	23.2	24.4	23.9	23.3
Max Dry Bulb Temperature (°C)	29.9	29.7	29.5	29.3	29.2	29.1	29.3	30.1	31.3	32.4	33.3	33.5
Average Dry Bulb Temperature (°C)	27.4	27.3	27.1	26.9	26.8	26.7	26.6	27.1	28.2	29.1	29.8	30.3
Average Dew Point Temperature (°C)	23.9	24.0	24.1	24.1	24.1	24.0	24.0	24.2	24.1	23.8	23.5	23.2
Average Relative Humidity (%)	81.6	82.7	83.8	84.8	85.4	85.9	86.1	84.3	78.9	73.7	69.7	66.3
Average Wind Speed (m/s)	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.7	2.1	2.6	2.8	3.0
Max Gust (m/s)	13.0	13.1	11.5	10.6	15.0	14.2	18.1	14.2	12.4	12.5	18.0	14.6
Rainfall (mm)	19.2	51.0	44.4	73.0	100.0	117.0	151.4	74.8	96.0	69.6	85.0	77.0



- No Data
- Defective Data

S24 Changi 2016

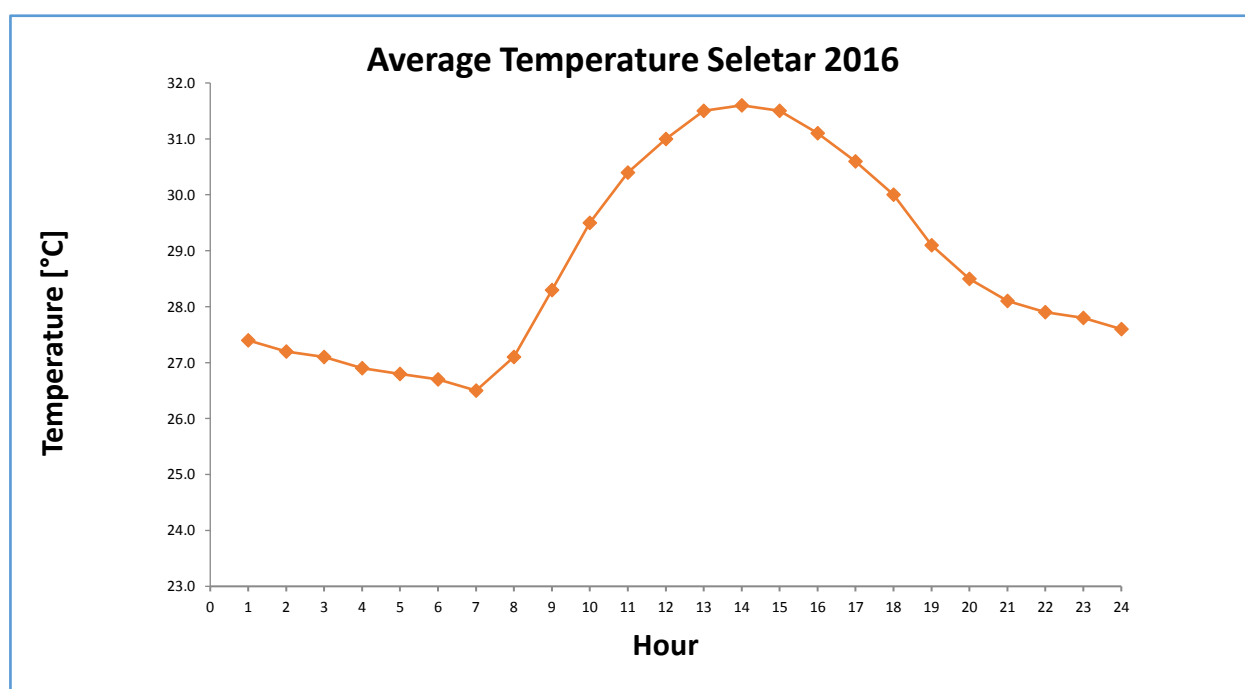
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.4	23.2	23.4	24.3	24.2	24.2	23.3	23.3	23.7	24.5	24.6	24.0
Max Dry Bulb Temperature (°C)	33.8	34.9	34.4	34.2	33.9	33.4	31.9	30.9	30.4	30.2	30.0	29.9
Average Dry Bulb Temperature (°C)	30.6	30.5	30.4	30.3	29.9	29.3	28.7	28.2	27.9	27.8	27.6	27.5
Average Dew Point Temperature (°C)	23.0	22.8	22.8	22.9	22.7	22.9	23.1	23.3	23.5	23.6	23.8	23.9
Average Relative Humidity (%)	64.6	64.4	64.9	65.7	66.5	69.2	72.3	75.2	77.3	78.7	79.8	80.7
Average Wind Speed (m/s)	3.2	3.3	3.4	3.4	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.8
Max Gust (m/s)	16.3	13.0	12.7	13.0	14.9	13.1	11.6	12.2	10.1	12.7	10.0	10.7
Rainfall (mm)	90.6	161.2	184.2	159.0	109.2	117.3	58.8	26.4	36.2	22.6	23.6	8.2



- No Data
- Defective Data

S25 Seletar 2016

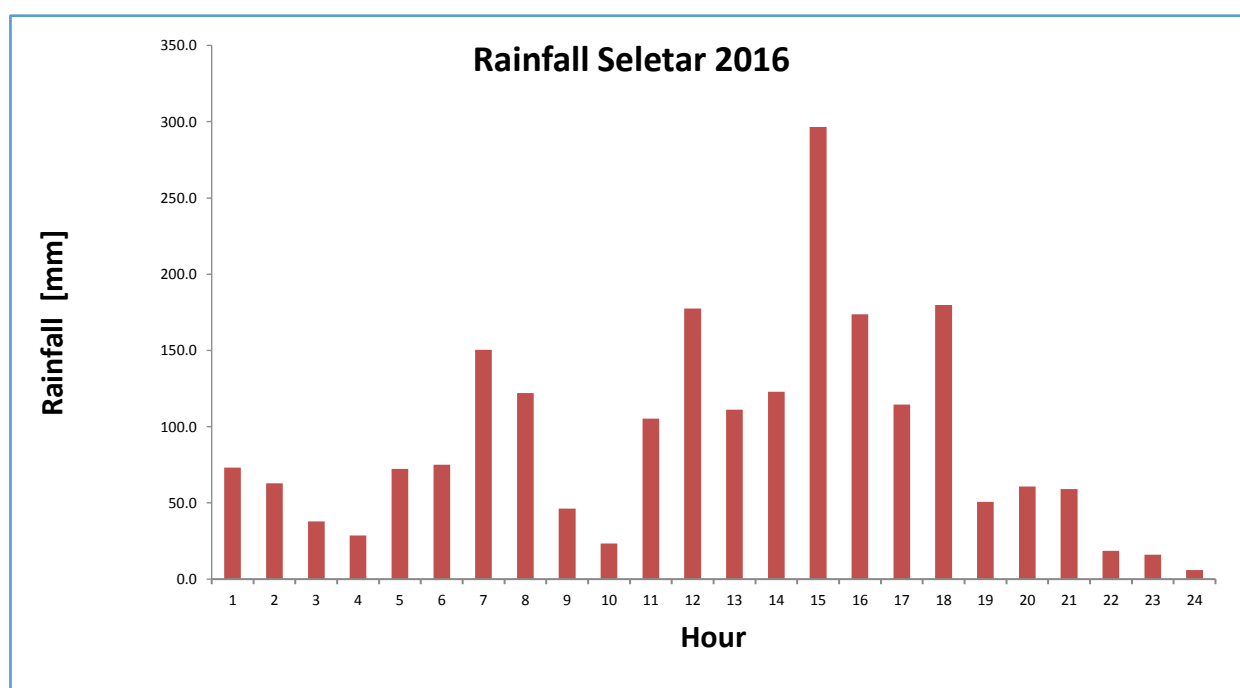
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.2	24.1	24.2	24.2	23.6	23.1	23.1	23.3	23.7	24.5	22.4	23.8
Max Dry Bulb Temperature (°C)	29.6	29.5	29.3	29.2	29.0	29.1	29.0	30.1	31.7	32.7	34.0	34.6
Average Dry Bulb Temperature (°C)	27.4	27.2	27.1	26.9	26.8	26.7	26.5	27.1	28.3	29.5	30.4	31.0
Average Dew Point Temperature (°C)	24.2	24.3	24.3	24.3	24.2	24.2	24.1	24.2	24.2	23.9	23.5	23.2
Average Relative Humidity (%)	82.8	84.0	84.9	85.4	85.9	86.4	86.8	84.8	78.5	72.4	67.5	64.1
Average Wind Speed (m/s)	—	—	—	—	1.8	1.8	1.7	1.8	2.2	2.9	3.2	3.5
Max Gust (m/s)	—	—	—	—	15.4	17.5	15.9	14.4	11.8	11.3	15.4	15.4
Rainfall (mm)	73.2	62.9	37.9	28.6	72.3	75.1	150.4	122.0	46.2	23.4	105.2	177.4



- No Data
- Defective Data

S25 Seletar 2016

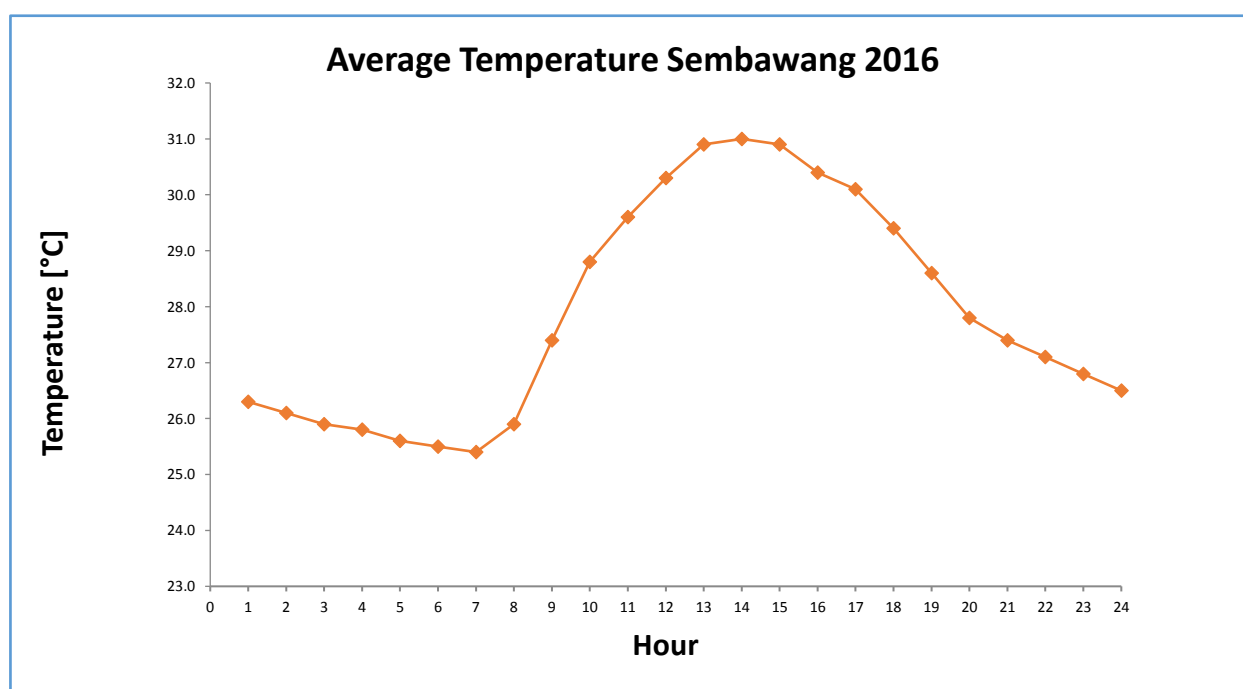
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.8	23.7	24.1	24.0	24.3	22.4	23.3	23.7	23.9	24.0	24.6	24.8
Max Dry Bulb Temperature (°C)	35.1	36.1	35.5	35.2	35.0	34.4	33.2	31.8	31.0	30.8	30.2	29.8
Average Dry Bulb Temperature (°C)	31.5	31.6	31.5	31.1	30.6	30.0	29.1	28.5	28.1	27.9	27.8	27.6
Average Dew Point Temperature (°C)	22.9	22.9	22.9	22.9	23.0	23.1	23.3	23.6	23.8	23.9	24.1	24.2
Average Relative Humidity (%)	61.5	60.9	61.7	63.4	65.0	67.8	71.7	75.4	77.6	79.3	80.6	81.9
Average Wind Speed (m/s)	3.5	3.8	4.0	3.9	3.8	3.5	3.2	3.0	2.7	2.4	2.2	—
Max Gust (m/s)	17.0	14.9	14.9	17.5	19.5	15.4	13.9	14.4	11.8	14.9	14.4	—
Rainfall (mm)	111.2	122.9	296.6	173.6	114.4	179.8	50.6	60.8	59.0	18.6	16.0	6.0



- No Data
- Defective Data

S80 Sembawang 2016

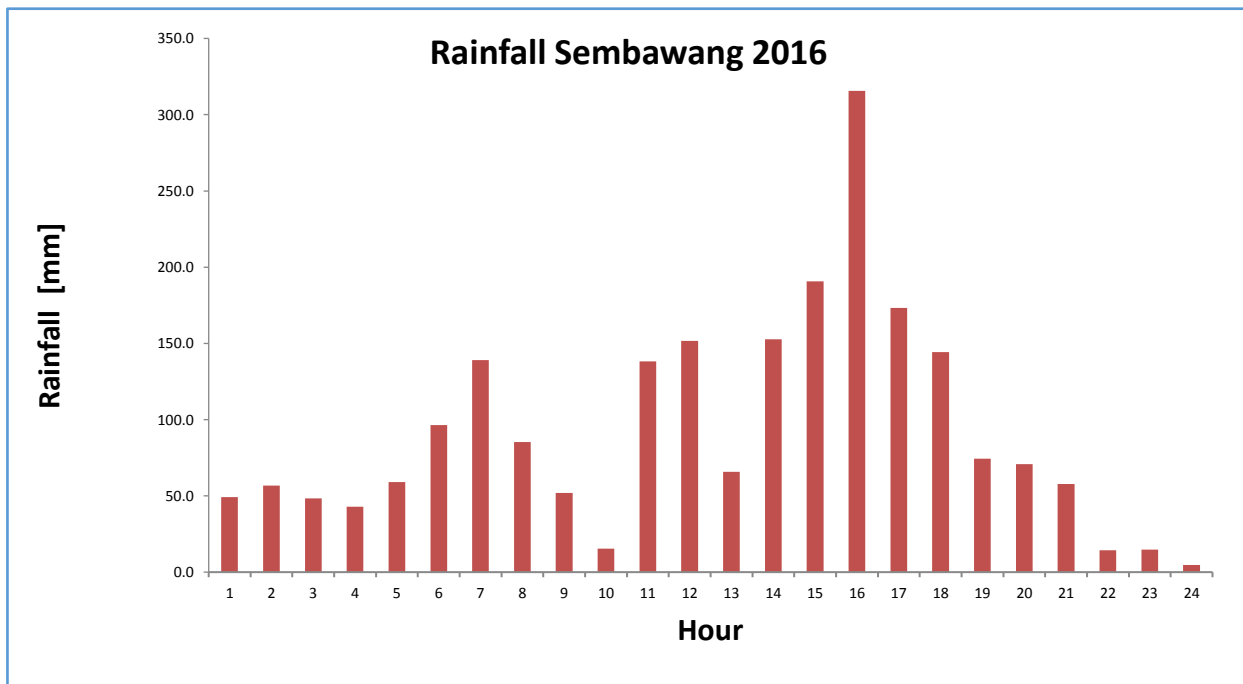
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.4	23.5	23.5	23.8	22.9	22.5	22.0	22.7	23.3	24.2	22.7	23.1
Max Dry Bulb Temperature (°C)	29.5	29.4	29.1	29.0	28.6	28.3	28.1	28.7	30.5	31.6	33.0	33.7
Average Dry Bulb Temperature (°C)	26.3	26.1	25.9	25.8	25.6	25.5	25.4	25.9	27.4	28.8	29.6	30.3
Average Dew Point Temperature (°C)	24.1	23.9	23.8	23.7	24.1	24.1	24.1	24.7	25.3	25.3	25.0	24.6
Average Relative Humidity (%)	87.7	87.9	88.1	88.2	91.3	91.9	92.8	93.6	88.3	82.0	76.7	72.6
Average Wind Speed (m/s)	—	—	—	—	1.5	1.5	1.4	1.4	1.8	2.5	2.9	3.1
Max Gust (m/s)	—	—	—	—	17.0	18.5	18.5	14.4	11.8	11.8	15.4	19.0
Rainfall (mm)	49.1	56.8	48.4	42.9	59.1	96.5	139.1	85.3	52.0	15.3	138.2	151.6



- No Data
- Defective Data

S80 Sembawang 2016

Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.7	23.4	23.7	24.0	24.3	23.6	23.0	23.6	23.8	23.3	23.3	23.3
Max Dry Bulb Temperature (°C)	34.5	34.7	35.0	34.7	34.8	33.7	32.5	31.0	30.3	29.9	29.8	29.5
Average Dry Bulb Temperature (°C)	30.9	31.0	30.9	30.4	30.1	29.4	28.6	27.8	27.4	27.1	26.8	26.5
Average Dew Point Temperature (°C)	24.3	24.1	24.0	23.9	24.1	24.1	24.3	24.6	24.6	24.7	24.7	24.3
Average Relative Humidity (%)	69.3	67.8	68.2	69.6	71.8	74.1	78.8	83.1	85.5	87.1	89.1	87.6
Average Wind Speed (m/s)	3.2	3.4	3.6	3.5	3.2	2.9	2.4	2.1	1.9	1.6	1.5	—
Max Gust (m/s)	14.9	14.4	15.9	17.0	17.0	13.9	14.4	16.5	16.5	17.0	10.8	—
Rainfall (mm)	65.8	152.8	190.6	315.7	173.3	144.3	74.4	70.8	57.8	14.3	14.7	4.7



- No Data
- Defective Data

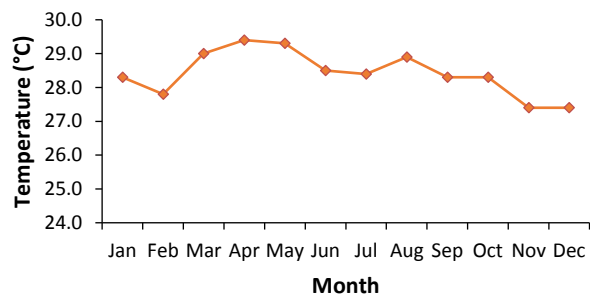
10. Weather Statistics for Automatic Weather Station

10.1. Monthly Observation

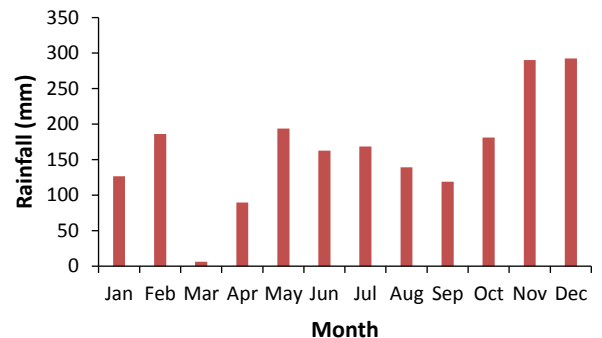
S24 Changi 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.9	23.3	25.4	25.3	23.9	22.5	22.5	22.1	22.6	21.6	22.7	23.0
Average Daily Min Temperature (°C)	26.0	25.6	26.6	26.7	26.5	26.1	25.8	26.2	25.1	25.2	24.9	24.7
Average Temperature (°C)	28.3	27.8	29.0	29.4	29.3	28.5	28.4	28.9	28.3	28.3	27.4	27.4
Average Daily Max Temperature (°C)	31.8	31.1	33.1	33.4	33.0	31.6	31.7	31.8	32.0	32.1	30.7	31.6
Max Temperature	32.8	32.7	34.1	35.0	34.6	33.4	33.4	33.8	34.4	34.6	32.6	33.6
Average Dew Point Temperature (°C)	24.3	23.7	23.9	24.5	24.7	24.1	23.9	23.6	22.9	22.5	22.9	21.7
Min Relative Humidity (%)	55.0	55.0	47.0	46.0	48.0	45.0	48.0	41.0	33.0	38.0	46.0	34.0
Average Relative Humidity (%)	79.6	78.8	74.7	75.6	77.4	77.6	77.1	74.0	73.9	72.0	77.6	72.8
Average Wind Speed (m/s)	2.8	3.3	3.2	2.3	2.1	2.0	2.2	2.3	1.9	1.8	1.7	2.0
Prevailing Wind Direction	NE	NE	NE	NE	SSW	SSW	S	SSW	SSW	W	NNW	NNW
Maximum Gust (m/s)	18.0	12.7	12.4	12.7	14.9	14.1	14.6	18.1	15.0	14.2	12.7	13.1
Total Rainfall (mm)	126.6	186.0	6.2	89.8	193.8	162.8	168.6	139.2	118.9	181.0	290.2	292.6
Highest Daily Rainfall (mm)	39.6	71.8	2.4	18.2	54.8	67.8	59.4	30.6	34.0	75.4	65.6	73.0

**Average Temperature Changi
2016**



Rainfall Changi 2016

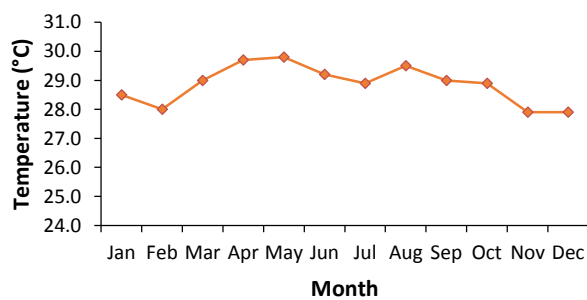


■ No Data
— Defective Data

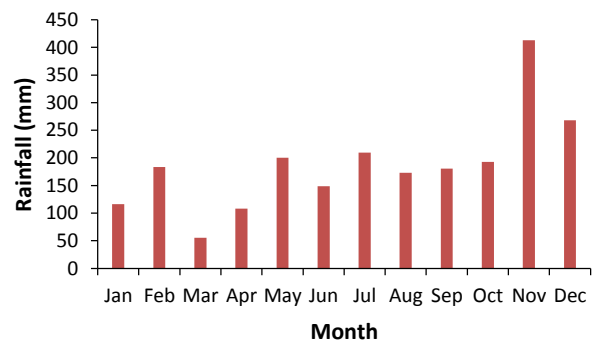
S43 Tai Seng 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.4	23.8	25.4	25.3	24.7	23.1	23.3	22.3	22.9	23.0	23.2	23.3
Average Daily Min Temperature (°C)	26.4	26.0	26.9	27.2	27.0	26.8	26.0	26.7	25.8	25.9	25.2	25.4
Average Temperature (°C)	28.5	28.0	29.0	29.7	29.8	29.2	28.9	29.5	29.0	28.9	27.9	27.9
Average Daily Max Temperature (°C)	31.6	31.0	32.7	33.7	33.6	32.4	32.1	32.6	32.5	32.3	31.1	31.8
Max Temperature	33.0	32.8	33.7	35.4	35.5	34.9	34.3	33.6	35.4	34.5	33.8	34.3
Average Dew Point Temperature (°C)	24.2	23.6	23.9	24.6	24.9	24.3	24.3	24.0	23.4	23.5	24.3	23.7
Min Relative Humidity (%)	52.6	46.3	46.9	40.1	40.3	39.9	45.7	40.9	36.7	39.7	43.5	42.8
Average Relative Humidity (%)	78.5	77.8	74.9	74.9	75.9	75.8	76.6	73.0	72.8	73.9	81.2	79.0
Average Wind Speed (m/s)	2.6	3.3	3.0	1.8	1.5	1.5	1.5	2.0	1.7	1.6	1.5	1.9
Prevailing Wind Direction	ENE	ENE	ENE	ENE	SSW	SSW	SSW	SSW	SSW	WNW	E	NNE
Maximum Gust (m/s)	14.0	15.2	13.1	10.6	12.6	13.9	22.8	19.7	22.0	13.5	20.1	13.2
Total Rainfall (mm)	116.2	183.4	55.4	108.2	200.4	148.6	209.6	172.8	180.4	192.8	413.2	268.2
Highest Daily Rainfall (mm)	29.0	94.6	18.4	60.8	43.6	52.0	44.0	36.6	86.6	50.4	68.0	86.0

**Average Temperature Tai Seng
2016**



Rainfall Tai Seng 2016

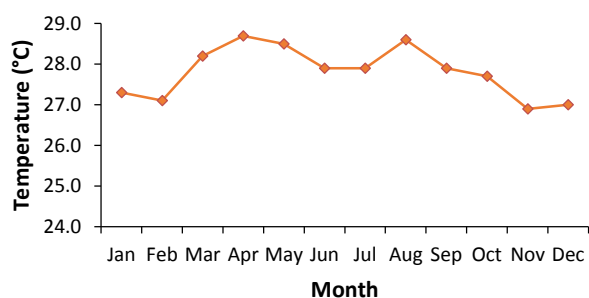


■ No Data
— Defective Data

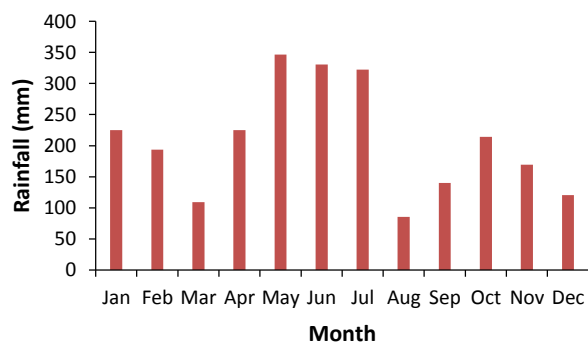
S44 Jurong (West) 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.3	23.2	23.7	23.7	23.2	22.2	22.2	22.1	22.2	21.7	22.6	22.7
Average Daily Min Temperature (°C)	25.0	24.7	25.5	25.7	25.3	25.3	24.9	25.8	24.6	24.7	24.3	24.4
Average Temperature (°C)	27.3	27.1	28.2	28.7	28.5	27.9	27.9	28.6	27.9	27.7	26.9	27.0
Average Daily Max Temperature (°C)	31.6	31.1	33.1	33.4	33.0	31.0	31.0	31.5	31.2	30.7	30.6	31.1
Max Temperature	33.6	33.0	34.6	35.1	35.4	33.7	33.7	32.9	33.2	32.5	33.4	34.1
Average Dew Point Temperature (°C)	24.3	23.4	22.7	23.2	23.7	22.7	23.5	22.7	22.1	22.4	—	22.3
Min Relative Humidity (%)	45.3	44.7	39.0	37.7	40.9	41.6	43.4	44.3	40.6	49.3	55.4	49.1
Average Relative Humidity (%)	85.2	80.7	72.3	69.8	73.2	68.4	69.4	69.8	69.0	70.9	—	72.5
Average Wind Speed (m/s)	1.9	2.4	2.1	1.8	1.8	1.8	1.9	2.2	2.1	2.2	1.8	2.2
Prevailing Wind Direction	N	NNE	NE	ENE	N	N	SE	S	WNW	WNW	N	N
Maximum Gust (m/s)	12.7	13.0	25.2	14.9	20.4	17.5	17.3	19.5	18.9	18.3	16.5	16.7
Total Rainfall (mm)	224.8	193.4	109.2	225.2	346.6	330.6	322.4	85.6	140.0	214.2	169.6	120.4
Highest Daily Rainfall (mm)	40.4	79.4	30.6	67.2	69.2	150.6	51.4	39.0	47.4	49.2	33.8	36.0

Average Temperature Jurong (West) 2016



Rainfall Jurong (West) 2016

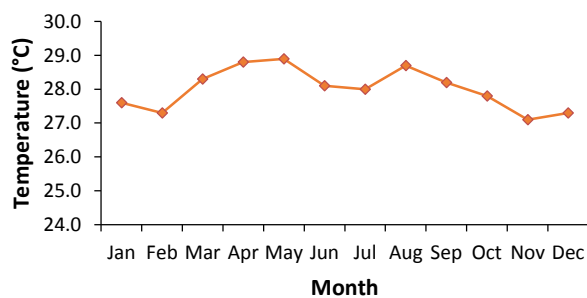


■ No Data
— Defective Data

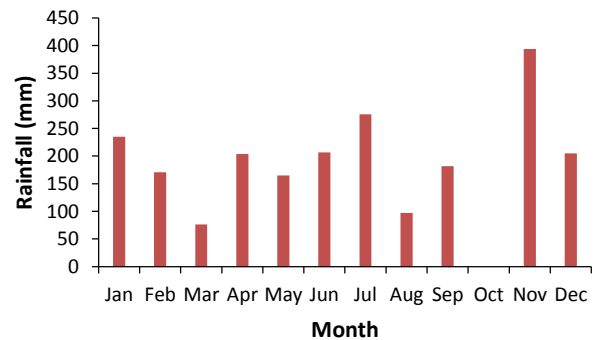
S50 Clementi 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.0	22.9	24.4	23.4	23.7	22.5	21.3	22.2	21.8	22.5	22.7	22.8
Average Daily Min Temperature (°C)	25.3	24.9	25.8	25.9	26.0	25.4	25.0	26.0	24.8	24.8	24.3	24.7
Average Temperature (°C)	27.6	27.3	28.3	28.8	28.9	28.1	28.0	28.7	28.2	27.8	27.1	27.3
Average Daily Max Temperature (°C)	31.6	31.0	32.9	33.5	33.4	31.7	31.7	32.1	32.2	31.4	30.9	31.7
Max Temperature	33.4	33.4	35.0	36.4	35.9	34.2	34.3	33.4	34.9	34.1	33.4	34.7
Average Dew Point Temperature (°C)	24.3	23.7	24.1	24.8	25.0	24.4	24.3	24.1	23.7	23.9	24.1	23.9
Min Relative Humidity (%)	50.2	52.3	49.9	46.7	44.2	46.2	50.0	48.0	40.4	44.0	50.5	46.7
Average Relative Humidity (%)	83.3	81.7	78.8	79.7	80.2	80.9	81.4	77.0	77.7	80.3	84.7	82.7
Average Wind Speed (m/s)	1.7	2.1	2.0	1.5	1.2	1.4	1.6	1.5	1.9	2.2	2.7	3.0
Prevailing Wind Direction	NE	NE	NE	NE	NE	SSE	NNW	SE	NNW	NNW	NNW	NW
Maximum Gust (m/s)	12.0	14.2	11.7	10.4	12.8	10.6	10.5	11.5	12.5	11.8	12.4	11.6
Total Rainfall (mm)	234.8	170.8	76.0	203.8	164.8	206.8	275.6	97.4	182.0	—	394.0	205.0
Highest Daily Rainfall (mm)	50.4	86.8	20.2	39.4	41.4	51.4	72.8	34.2	33.8	48.0	69.4	34.8

**Average Temperature Clementi
2016**



Rainfall Clementi 2016

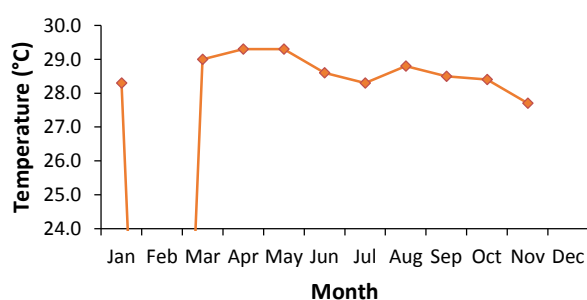


■ No Data
— Defective Data

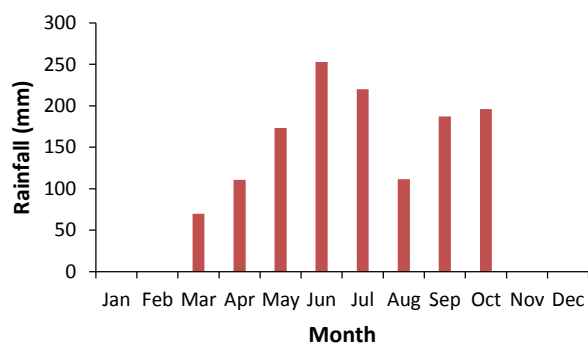
S60 Sentosa Island 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.7	23.3	23.0	23.8	24.0	22.4	23.4	22.1	22.0	23.2	23.0	
Average Daily Min Temperature (°C)	25.8	23.3	26.8	26.9	26.6	26.1	25.8	26.5	25.4	25.5	25.2	
Average Temperature (°C)	28.3	—	29.0	29.3	29.3	28.6	28.3	28.8	28.5	28.4	27.7	
Average Daily Max Temperature (°C)	31.8	27.8	32.7	32.7	32.6	31.4	31.3	31.6	31.5	31.4	30.5	
Max Temperature	33.8	27.8	34.2	35.3	35.3	33.3	33.7	33.3	33.7	33.7	32.8	
Average Dew Point Temperature (°C)	23.6	—	22.2	23.3	23.8	23.4	23.4	23.0	22.4	22.5	23.6	
Min Relative Humidity (%)	40.2	74.0	34.4	37.0	38.5	40.6	39.3	39.8	30.8	39.0	42.7	
Average Relative Humidity (%)	76.5	—	68.0	71.4	73.2	74.0	75.4	71.7	71.1	71.6	78.8	
Average Wind Speed (m/s)	2.0	1.7	2.2	2.0	1.9	1.8	1.7	2.2	1.6	1.6	1.7	
Prevailing Wind Direction	ENE	N	NNE	E	E	E	ESE	SSW	S	WNW	SSW	
Maximum Gust (m/s)	12.6	11.2	12.6	11.0	13.2	12.2	12.4	18.0	13.0	13.3	11.8	
Total Rainfall (mm)	—	—	69.8	110.8	173.4	253.0	220.0	111.6	187.2	196.0	—	
Highest Daily Rainfall (mm)	35.8	94.6	40.0	35.4	45.2	134.6	45.6	44.0	51.6	41.8	58.0	

Average Temperature Sentosa Island 2016



Rainfall Sentosa Island 2016

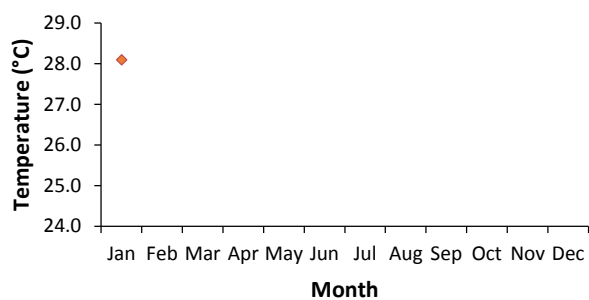


■ No Data
— Defective Data

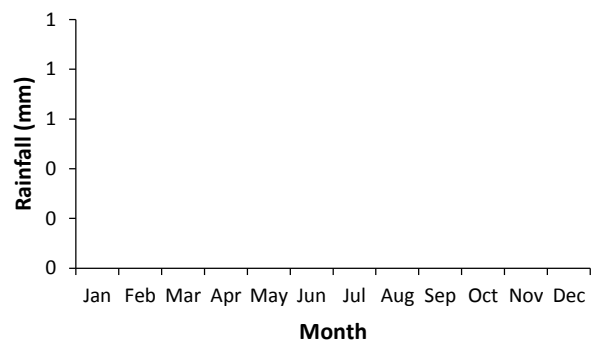
S86 Boon Lay (East) 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.6											
Average Daily Min Temperature (°C)	26.0											
Average Temperature (°C)	28.1											
Average Daily Max Temperature (°C)	31.6											
Max Temperature	33.6											
Average Dew Point Temperature (°C)	24.6											
Min Relative Humidity (%)	47.3											
Average Relative Humidity (%)	82.5											
Average Wind Speed (m/s)	1.7											
Prevailing Wind Direction	ENE											
Maximum Gust (m/s)	22.2											
Total Rainfall (mm)	—											
Highest Daily Rainfall (mm)	19.4											

Average Temperature Boon Lay (East) 2016



Rainfall Boon Lay (East) 2016

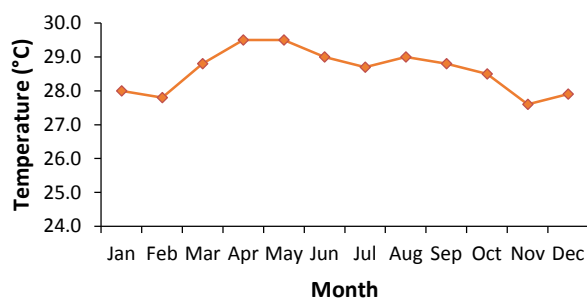


■ No Data
— Defective Data

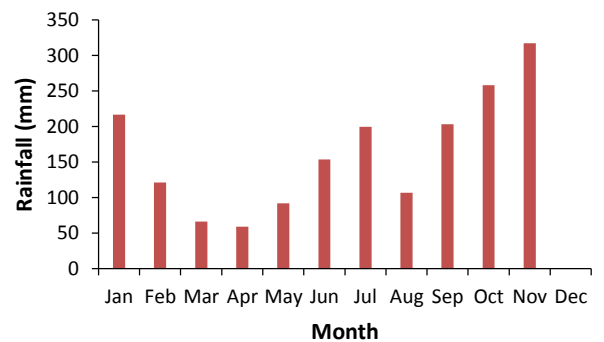
S102 Semakau Island 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.9	23.7	23.5	25.4	24.7	23.1	23.6	23.7	23.1	23.0	22.4	23.4
Average Daily Min Temperature (°C)	26.0	26.2	27.2	27.9	27.6	27.0	26.5	27.1	26.1	25.9	25.5	26.0
Average Temperature (°C)	28.0	27.8	28.8	29.5	29.5	29.0	28.7	29.0	28.8	28.5	27.6	27.9
Average Daily Max Temperature (°C)	30.0	29.8	30.9	31.5	31.5	30.5	30.4	30.4	30.3	29.9	29.1	30.1
Max Temperature	31.2	31.6	32.1	33.5	34.0	32.4	32.5	31.5	31.6	31.0	30.4	32.3
Average Dew Point Temperature (°C)	23.9	23.3	24.1	24.9	24.9	24.4	24.4	24.5	24.1	24.3	23.9	24.3
Min Relative Humidity (%)	56.1	48.6	51.2	40.4	46.9	54.1	57.8	55.4	55.8	53.6	56.5	50.6
Average Relative Humidity (%)	78.8	76.6	76.0	76.5	76.5	76.4	78.1	77.0	76.3	78.1	80.9	80.8
Average Wind Speed (m/s)	4.3	5.1	4.8	5.0	5.4	5.6	5.4	6.2	6.9	7.6	6.0	6.5
Prevailing Wind Direction	N	N	N	N	S	S	S	S	W	W	W	W
Maximum Gust (m/s)	22.7	23.3	17.3	18.5	23.7	26.1	25.8	27.1	28.6	31.9	28.7	23.1
Total Rainfall (mm)	216.8	121.2	66.4	58.8	92.0	153.4	199.7	106.6	203.4	258.0	317.2	—
Highest Daily Rainfall (mm)	34.4	82.2	39.4	30.8	14.6	68.6	35.8	37.4	44.8	45.6	128.0	33.6

Average Temperature Semakau Island 2016



Rainfall Semakau Island 2016

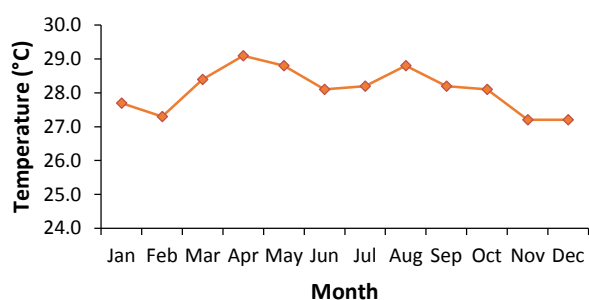


■ No Data
— Defective Data

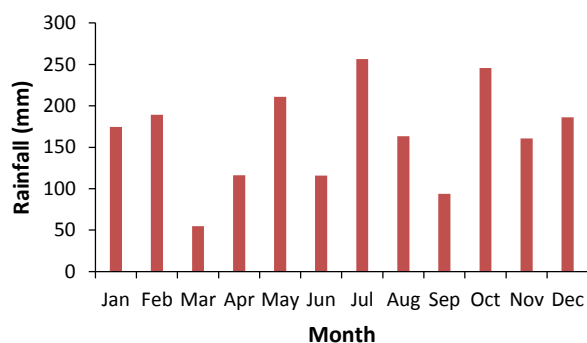
S104 Admiralty 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.1	23.5	24.3	24.0	23.7	22.6	22.2	21.9	22.7	22.2	22.1	22.8
Average Daily Min Temperature (°C)	25.5	25.1	25.9	26.2	25.8	25.6	25.2	25.7	24.9	25.1	24.8	24.6
Average Temperature (°C)	27.7	27.3	28.4	29.1	28.8	28.1	28.2	28.8	28.2	28.1	27.2	27.2
Average Daily Max Temperature (°C)	31.4	30.6	32.8	33.9	33.4	31.6	32.1	32.1	32.3	31.6	31.0	31.3
Max Temperature	34.4	32.6	35.0	36.3	35.5	34.3	34.7	33.7	34.5	33.8	34.0	34.2
Average Dew Point Temperature (°C)	25.7	25.0	25.4	26.0	26.2	25.6	25.4	24.9	24.7	24.9	25.4	24.9
Min Relative Humidity (%)	53.3	50.9	47.1	44.7	44.0	42.2	46.9	44.2	42.9	45.1	45.3	41.2
Average Relative Humidity (%)	89.6	88.4	85.2	84.9	87.0	87.4	84.9	80.4	82.6	82.9	90.8	87.8
Average Wind Speed (m/s)	2.9	3.5	3.3	2.3	1.8	1.6	1.8	2.0	2.0	2.2	2.0	2.5
Prevailing Wind Direction	N	N	NE	NE	N	S	S	S	S	WSW	N	N
Maximum Gust (m/s)	17.9	16.1	14.7	12.1	16.1	15.0	14.3	18.1	16.6	15.7	16.1	13.0
Total Rainfall (mm)	174.4	189.4	54.8	116.4	211.0	115.8	256.6	163.4	93.8	245.8	160.6	186.0
Highest Daily Rainfall (mm)	33.8	69.0	16.0	28.0	51.0	28.8	76.4	27.2	20.8	67.8	32.2	50.0

Average Temperature Admiralty 2016



Rainfall Admiralty 2016

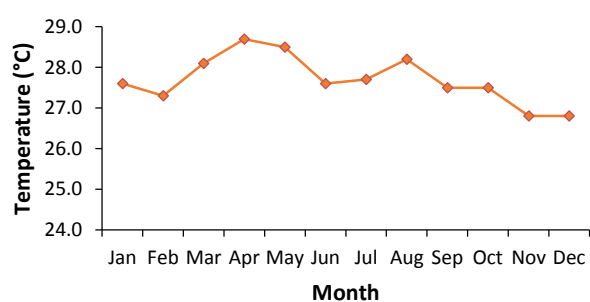


■ No Data
— Defective Data

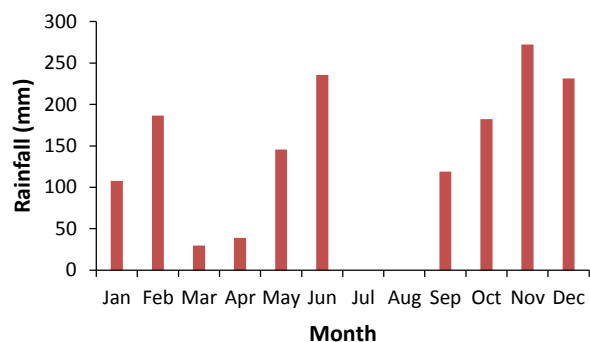
S106 Pulau Ubin 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.8	22.2	23.2	23.9	23.7	22.6	22.7	22.2	22.2	21.9	22.1	22.7
Average Daily Min Temperature (°C)	24.9	24.7	25.1	25.6	25.4	24.9	24.6	25.0	24.1	24.2	24.2	24.1
Average Temperature (°C)	27.6	27.3	28.1	28.7	28.5	27.6	27.7	28.2	27.5	27.5	26.8	26.8
Average Daily Max Temperature (°C)	31.7	30.8	32.6	34.2	33.9	32.4	32.4	33.0	32.8	32.1	31.0	31.4
Max Temperature	33.3	32.6	34.1	36.6	35.7	34.7	34.2	34.2	34.9	35.5	34.4	34.0
Average Dew Point Temperature (°C)	25.6	25.0	25.4	25.9	26.3	25.9	25.9	25.7	25.0	25.0	25.3	24.9
Min Relative Humidity (%)	61.3	58.2	55.9	49.8	54.2	49.3	58.5	52.1	43.0	51.4	47.0	52.0
Average Relative Humidity (%)	89.9	88.5	86.2	86.3	88.8	91.4	90.6	87.4	87.3	87.4	92.3	90.5
Average Wind Speed (m/s)	2.8	3.1	2.9	2.6	2.6	2.4	2.4	2.4	2.3	2.3	2.3	2.2
Prevailing Wind Direction	NNW	NNW	NNW	NW	NW	NW	NW	W	WNW	WNW	NE	N
Maximum Gust (m/s)	12.0	12.4	11.0	17.5	12.0	13.9	12.4	12.1	12.0	11.7	12.4	10.5
Total Rainfall (mm)	107.8	186.6	29.8	39.0	145.4	235.6	—	—	118.8	182.2	272.2	231.2
Highest Daily Rainfall (mm)	36.2	70.4	16.0	18.6	34.8	76.4	44.0	40.2	28.2	50.0	45.8	36.2

Average Temperature Pulau Ubin 2016



Rainfall Pulau Ubin 2016

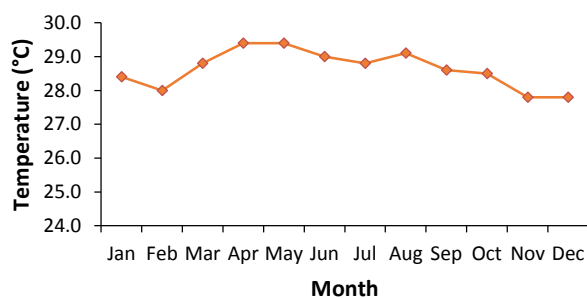


■ No Data
— Defective Data

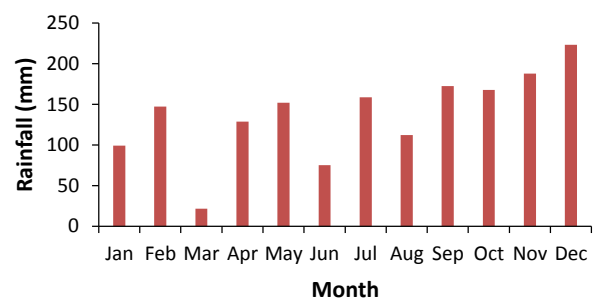
S107 East Coast Parkway 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.4	23.7	26.2	24.9	24.4	23.7	23.0	22.6	22.4	23.3	23.6	23.7
Average Daily Min Temperature (°C)	26.5	26.2	27.0	27.1	27.1	27.0	26.6	26.8	25.8	25.8	25.7	25.5
Average Temperature (°C)	28.4	28.0	28.8	29.4	29.4	29.0	28.8	29.1	28.6	28.5	27.8	27.8
Average Daily Max Temperature (°C)	31.0	30.4	31.6	31.5	31.4	30.5	30.5	30.5	30.7	30.6	29.9	30.9
Max Temperature	32.4	32.2	33.2	33.6	33.2	31.7	32.0	31.9	33.7	33.4	31.9	32.7
Average Dew Point Temperature (°C)	24.8	24.3	24.7	25.5	25.7	25.1	25.0	25.0	24.4	24.4	24.8	24.4
Min Relative Humidity (%)	58.4	57.0	54.2	50.8	55.2	58.3	54.1	58.7	42.8	51.6	60.1	51.8
Average Relative Humidity (%)	81.4	80.8	79.0	80.2	80.5	80.0	80.5	78.7	78.6	78.9	84.3	82.2
Average Wind Speed (m/s)	2.4	3.1	2.9	2.5	2.7	3.0	3.1	4.1	3.1	2.9	2.2	2.2
Prevailing Wind Direction	NNE	NNE	NNE	NNE	ESE	S	SE	SSW	S	SW	N	N
Maximum Gust (m/s)	14.4	14.6	14.4	12.7	14.9	27.9	15.8	18.7	19.4	18.2	18.3	13.1
Total Rainfall (mm)	99.2	147.4	21.6	128.6	152.2	75.0	158.6	112.2	172.4	167.6	187.8	223.4
Highest Daily Rainfall (mm)	37.8	61.6	16.6	42.8	37.4	23.0	96.8	21.2	68.4	33.8	46.0	62.0

Average Temperature East Coast Parkway 2016



Rainfall East Coast Parkway 2016

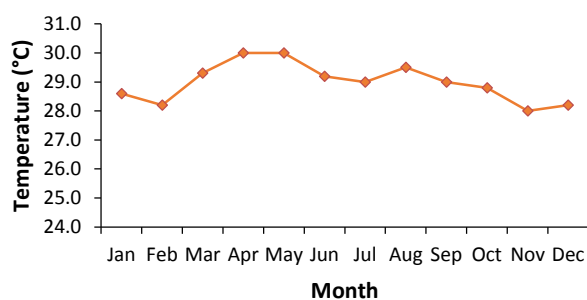


- No Data
- Defective Data

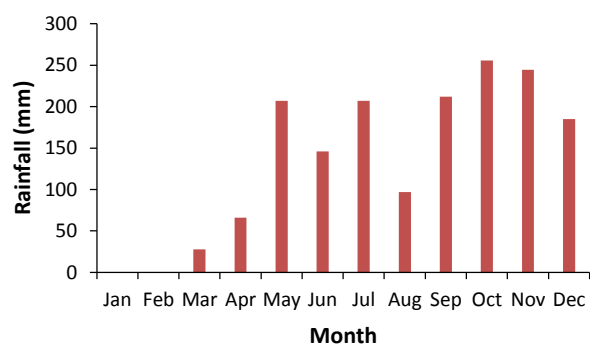
S108 Marina Barrage 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.6	22.7	24.8	25.5	24.7	23.2	23.2	22.9	22.1	23.0	22.9	23.5
Average Daily Min Temperature (°C)	26.4	25.9	27.1	27.4	26.9	26.6	26.2	26.9	25.8	25.7	25.3	25.6
Average Temperature (°C)	28.6	28.2	29.3	30.0	30.0	29.2	29.0	29.5	29.0	28.8	28.0	28.2
Average Daily Max Temperature (°C)	32.4	31.5	33.1	34.0	33.8	32.4	32.6	32.7	32.5	32.1	31.4	32.3
Max Temperature	34.5	34.2	34.7	36.0	35.9	34.4	35.6	34.5	35.2	34.6	34.1	34.3
Average Dew Point Temperature (°C)	24.4	23.7	24.0	25.0	25.2	24.6	24.5	24.3	23.6	23.8	24.5	23.8
Min Relative Humidity (%)	46.5	41.5	43.6	40.7	43.9	46.4	46.8	43.3	33.4	42.2	48.5	42.6
Average Relative Humidity (%)	78.6	77.6	74.0	75.3	76.2	77.2	77.2	74.4	73.6	75.2	81.7	78.2
Average Wind Speed (m/s)	2.3	3.2	2.7	1.7	1.8	2.1	2.5	2.8	3.7	3.9	4.2	4.8
Prevailing Wind Direction	NE	NNE	NNE	NE	ESE	SSW	NNW	SSW	NNW	NNW	N	NNW
Maximum Gust (m/s)	20.5	12.6	12.6	10.3	14.6	13.3	20.4	17.5	17.3	16.2	16.4	14.3
Total Rainfall (mm)	—	—	27.8	66.0	207.2	145.8	207.0	97.0	212.0	255.8	244.4	184.8
Highest Daily Rainfall (mm)	18.2	80.8	22.2	21.2	40.4	45.2	91.6	26.8	54.4	49.8	43.8	50.4

Average Temperature Marina Barrage 2016



Rainfall Marina Barrage 2016

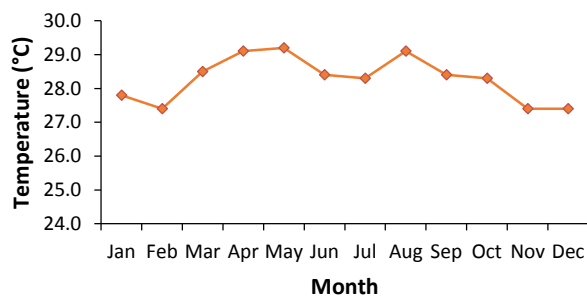


■ No Data
— Defective Data

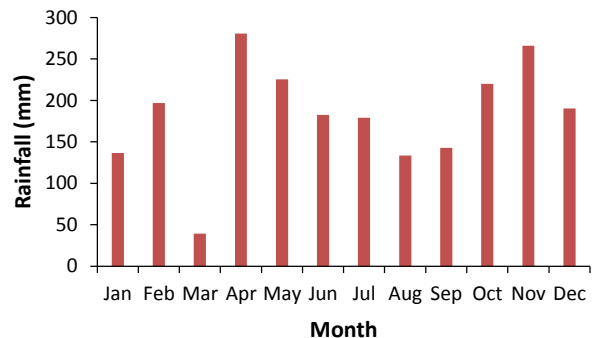
S109 Ang Mo Kio 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.9	21.5	24.3	24.0	24.1	22.2	21.2	22.3	22.8	22.4	22.8	23.0
Average Daily Min Temperature (°C)	25.5	25.0	26.0	26.0	26.2	25.8	25.4	26.1	25.0	25.2	24.7	24.8
Average Temperature (°C)	27.8	27.4	28.5	29.1	29.2	28.4	28.3	29.1	28.4	28.3	27.4	27.4
Average Daily Max Temperature (°C)	31.6	30.8	33.0	33.9	33.6	31.9	32.0	32.4	32.3	32.0	31.2	31.8
Max Temperature	34.0	32.8	34.7	35.8	35.6	34.5	34.6	34.1	35.2	34.4	34.3	34.7
Average Dew Point Temperature (°C)	23.8	23.2	23.3	24.0	24.3	23.7	23.5	23.0	22.8	22.9	23.8	23.3
Min Relative Humidity (%)	45.9	45.6	40.1	39.3	39.8	37.0	40.4	38.5	34.0	40.8	39.1	38.2
Average Relative Humidity (%)	80.1	79.2	74.7	75.5	76.4	76.6	76.4	70.9	72.8	74.2	82.1	79.8
Average Wind Speed (m/s)	1.8	2.1	2.0	1.5	1.4	1.3	1.5	1.7	1.5	1.6	1.3	1.6
Prevailing Wind Direction	NE	NE	NE	ENE	W	W	E	SW	W	WSW	W	W
Maximum Gust (m/s)	13.4	14.4	11.1	18.6	17.9	14.8	18.2	19.0	13.7	14.2	17.7	11.7
Total Rainfall (mm)	136.6	196.8	39.4	280.6	225.6	182.4	179.2	133.6	142.6	220.0	266.2	190.4
Highest Daily Rainfall (mm)	40.8	85.4	11.6	36.8	59.0	46.4	36.4	29.2	34.2	41.8	41.2	46.4

Average Temperature Ang Mo Kio 2016



Rainfall Ang Mo Kio 2016

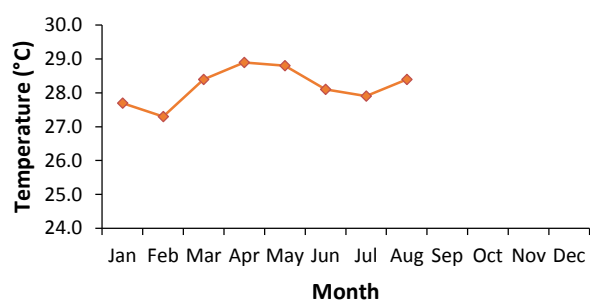


■ No Data
— Defective Data

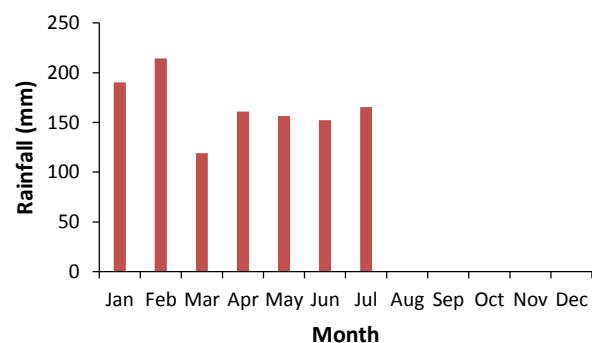
S111 Newton 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.8	22.4	24.1	24.5	24.0	22.3	22.2	21.6				
Average Daily Min Temperature (°C)	25.6	25.0	26.2	26.3	26.2	25.8	25.3	26.2				
Average Temperature (°C)	27.7	27.3	28.4	28.9	28.8	28.1	27.9	28.4				
Average Daily Max Temperature (°C)	31.4	30.5	32.3	32.7	32.6	31.3	31.0	31.2				
Max Temperature	33.5	32.6	34.2	34.4	34.5	33.8	33.2	32.2				
Average Dew Point Temperature (°C)	23.5	22.4	23.1	23.9	24.1	23.6	23.7	23.1				
Min Relative Humidity (%)	50.8	48.0	47.1	43.7	40.5	42.0	48.0	45.5				
Average Relative Humidity (%)	76.2	74.2	73.9	74.8	74.0	74.9	75.5	72.9				
Average Wind Speed (m/s)	1.7	2.0	2.0	1.8	1.8	1.8	2.0	2.3				
Prevailing Wind Direction	N	N	E	E	ESE	SSW	ESE	SSW				
Maximum Gust (m/s)	13.7	14.6	12.9	13.3	15.1	13.4	15.1	14.3				
Total Rainfall (mm)	190.2	214.4	119.0	161.0	156.4	152.2	165.4	—				
Highest Daily Rainfall (mm)	22.8	92.0	51.6	40.0	40.2	43.4	40.0	11.8				

**Average Temperature Newton
2016**



Rainfall Newton 2016

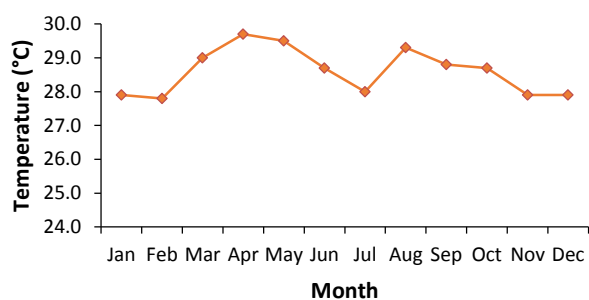


■ No Data
— Defective Data

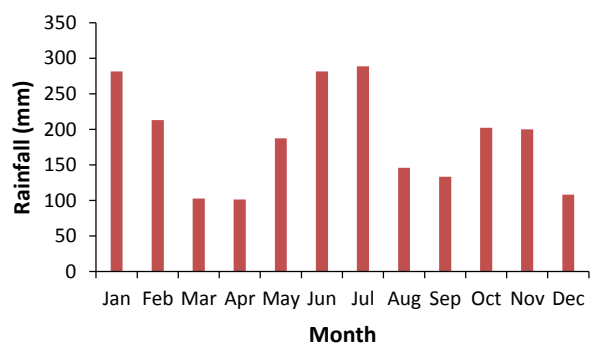
S115 Tuas South 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	24.2	23.4	24.2	23.8	23.7	23.5	23.6	23.0	24.0	23.0	23.7	23.9
Average Daily Min Temperature (°C)	25.7	25.6	26.6	27.0	26.6	26.7	26.1	26.9	25.8	25.9	25.5	25.7
Average Temperature (°C)	27.9	27.8	29.0	29.7	29.5	28.7	28.0	29.3	28.8	28.7	27.9	27.9
Average Daily Max Temperature (°C)	31.3	31.6	32.8	33.0	32.6	31.3	31.3	31.6	31.3	30.8	30.5	31.2
Max Temperature	34.1	33.4	34.8	35.6	34.4	33.5	34.1	33.1	33.1	32.8	32.3	33.3
Average Dew Point Temperature (°C)	24.1	23.4	23.8	24.6	24.8	24.2	24.1	24.0	23.7	24.0	24.0	23.6
Min Relative Humidity (%)	47.9	46.8	40.3	40.5	49.6	52.0	45.0	50.6	50.5	53.8	55.7	47.4
Average Relative Humidity (%)	80.4	77.6	74.5	74.8	76.3	76.8	79.4	73.9	74.6	76.4	79.8	77.9
Average Wind Speed (m/s)	1.4	1.8	1.5	1.4	1.6	1.6	1.6	2.0	2.1	2.3	1.8	1.9
Prevailing Wind Direction	NE	NE	NE	NE	SSW	SSW	SSW	SSW	SSW	WNW	NNE	NNE
Maximum Gust (m/s)	15.7	12.1	12.0	17.7	15.0	18.4	15.1	18.0	17.8	20.2	14.8	15.5
Total Rainfall (mm)	281.6	213.0	102.6	101.0	187.4	281.6	288.8	145.8	133.0	202.2	200.0	108.2
Highest Daily Rainfall (mm)	43.0	69.0	55.8	23.2	54.2	208.2	53.0	48.4	23.4	37.6	46.0	45.4

Average Temperature Tuas South 2016



Rainfall Tuas South 2016

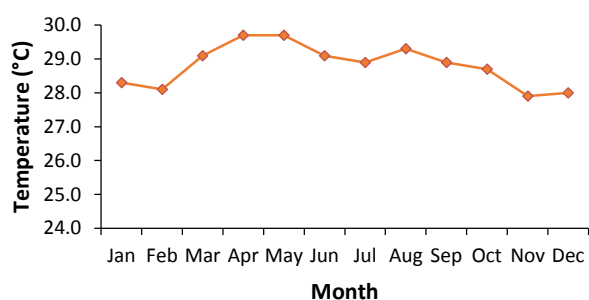


■ No Data
— Defective Data

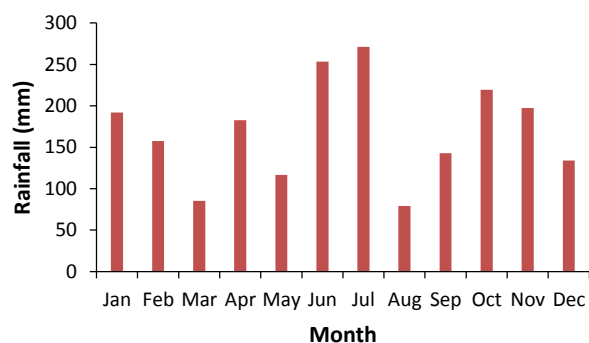
S116 Pasir Panjang 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	24.1	23.8	23.2	23.5	24.1	22.7	22.3	22.6	21.8	21.9	23.3	23.3
Average Daily Min Temperature (°C)	26.2	26.0	26.8	27.1	27.0	26.9	26.3	27.1	25.8	25.9	25.4	25.8
Average Temperature (°C)	28.3	28.1	29.1	29.7	29.7	29.1	28.9	29.3	28.9	28.7	27.9	28.0
Average Daily Max Temperature (°C)	31.8	31.4	32.7	32.8	32.4	31.2	31.1	31.3	31.2	30.9	30.4	31.1
Max Temperature	33.7	33.3	33.9	35.3	34.2	33.2	33.6	32.8	33.0	33.0	32.1	33.2
Average Dew Point Temperature (°C)	25.4	24.7	25.1	26.0	26.3	25.8	25.7	25.6	25.0	25.2	25.5	25.0
Min Relative Humidity (%)	47.3	48.0	46.5	44.1	45.8	52.1	54.7	51.6	46.7	43.3	58.8	47.2
Average Relative Humidity (%)	84.9	82.6	80.2	81.2	82.4	82.8	83.7	80.8	80.2	81.8	86.9	84.3
Average Wind Speed (m/s)	2.8	3.4	3.0	2.4	2.5	2.5	2.6	2.8	3.0	3.4	2.7	3.3
Prevailing Wind Direction	NE	NE	NE	NE	NE	SSW	ESE	ESE	SSW	NE	NE	NE
Maximum Gust (m/s)	16.5	14.1	16.4	17.1	23.5	23.0	18.5	23.9	22.2	23.5	20.7	19.8
Total Rainfall (mm)	192.0	157.4	85.4	182.6	116.6	253.2	271.0	79.0	143.0	219.4	197.4	134.0
Highest Daily Rainfall (mm)	49.8	90.6	47.8	65.0	24.4	101.6	47.2	38.0	31.4	48.6	40.2	29.4

Average Temperature Pasir Panjang 2016



Rainfall Pasir Panjang 2016

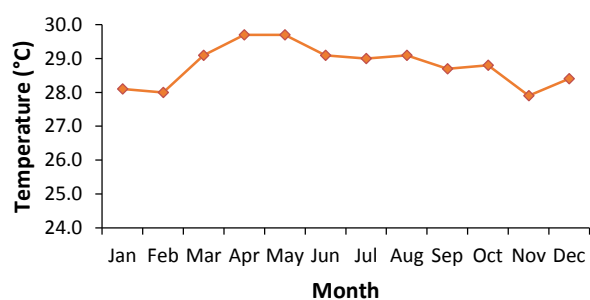


- No Data
- Defective Data

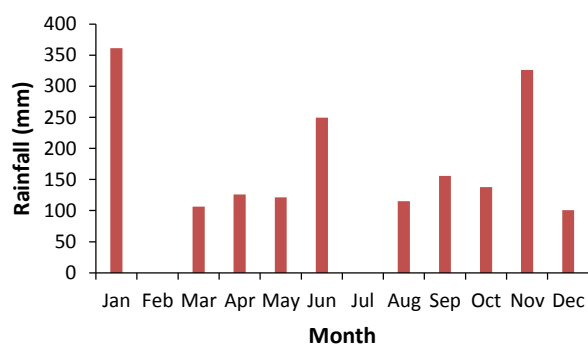
S117 Jurong Island 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	22.8	23.7	23.9	24.2	23.7	23.0	21.9	23.0	22.7	22.5	22.7	23.3
Average Daily Min Temperature (°C)	25.5	25.7	26.8	27.1	26.8	26.7	25.9	26.8	25.5	25.6	24.9	25.7
Average Temperature (°C)	28.1	28.0	29.1	29.7	29.7	29.1	29.0	29.1	28.7	28.8	27.9	28.4
Average Daily Max Temperature (°C)	31.5	32.0	32.8	33.0	32.7	31.6	31.3	31.8	31.6	31.4	30.7	31.7
Max Temperature	33.9	33.9	34.8	35.6	34.1	33.8	33.5	33.1	33.8	33.5	32.5	34.2
Average Dew Point Temperature (°C)	23.9	22.7	23.2	24.1	24.3	23.9	24.0	23.7	23.2	23.5	23.6	23.2
Min Relative Humidity (%)	41.3	38.8	35.3	42.2	37.6	42.9	47.4	45.5	42.8	46.7	48.1	39.8
Average Relative Humidity (%)	78.5	74.0	71.5	73.1	73.5	74.1	75.1	73.6	72.9	73.7	78.4	74.3
Average Wind Speed (m/s)	1.5	1.7	1.9	2.2	2.3	2.3	2.5	3.0	2.1	1.9	1.8	1.8
Prevailing Wind Direction	N	N	N	NE	WSW	WSW	ESE	SSE	WSW	WSW	WSW	NNW
Maximum Gust (m/s)	14.3	13.6	11.5	14.9	16.9	16.0	12.8	15.2	15.4	15.9	14.1	12.4
Total Rainfall (mm)	361.4	—	106.6	125.8	121.4	249.8	—	115.4	156.0	137.8	326.6	100.8
Highest Daily Rainfall (mm)	56.6	71.6	56.6	30.2	43.6	109.6	37.6	69.2	31.4	28.4	42.0	31.4

Average Temperature Jurong Island 2016



Rainfall Jurong Island 2016

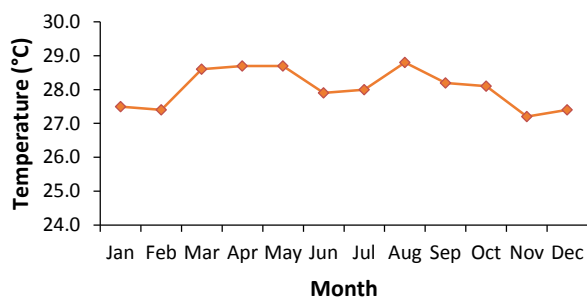


■ No Data
— Defective Data

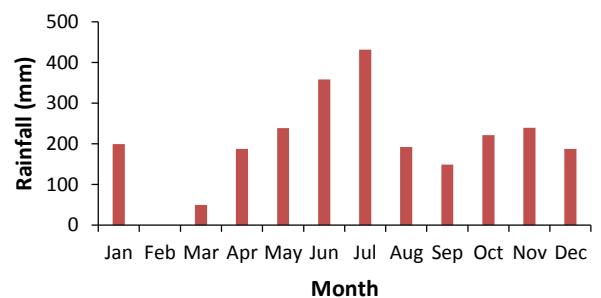
S121 Choa Chu Kang (South) 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.2	23.4	25.1	24.4	24.2	23.0	22.5	22.1	22.6	22.6	23.1	23.1
Average Daily Min Temperature (°C)	25.1	24.9	25.9	25.7	25.6	25.2	24.9	25.7	24.8	24.9	24.6	24.8
Average Temperature (°C)	27.5	27.4	28.6	28.7	28.7	27.9	28.0	28.8	28.2	28.1	27.2	27.4
Average Daily Max Temperature (°C)	31.7	31.2	33.1	33.7	33.6	31.7	31.8	32.3	32.1	31.7	31.1	31.7
Max Temperature	33.9	33.1	34.8	35.7	35.7	34.6	34.5	33.7	34.3	33.9	34.8	34.9
Average Dew Point Temperature (°C)	25.7	25.4	26.3	26.4	25.4	25.3	25.0	24.0	23.8	24.4	25.1	24.3
Min Relative Humidity (%)	54.9	52.7	49.7	49.8	44.9	39.4	46.5	44.4	41.2	46.6	81.8	45.6
Average Relative Humidity (%)	91.1	88.1	88.2	85.1	84.0	86.3	78.2	74.6	74.7	78.8	93.0	78.3
Average Wind Speed (m/s)	1.9	2.6	2.2	1.4	1.2	1.2	1.3	1.4	1.3	1.3	1.2	1.6
Prevailing Wind Direction	NNE	NNE	NNE	N	N	N	N	SSE	N	W	N	N
Maximum Gust (m/s)	26.2	15.2	12.0	13.1	12.9	27.0	28.4	15.5	12.1	14.8	24.7	21.7
Total Rainfall (mm)	199.4	—	49.6	187.2	238.4	358.6	431.6	192.2	148.6	221.0	239.4	187.2
Highest Daily Rainfall (mm)	21.4	78.0	19.2	56.6	47.6	70.0	51.6	65.6	48.0	55.6	61.8	39.0

Average Temperature Choa Chu Kang (South) 2016



Rainfall Choa Chu Kang (South) 2016

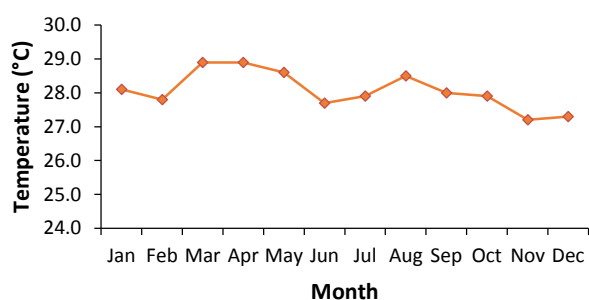


■ No Data
— Defective Data

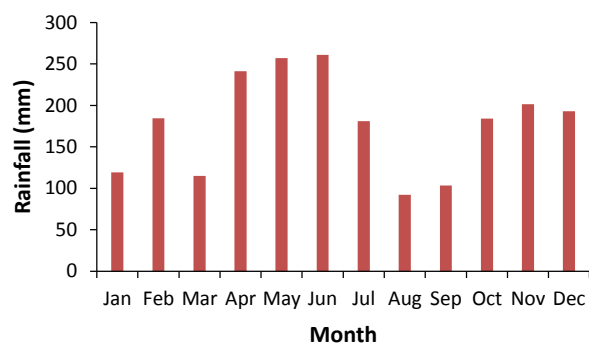
S122 Khatib 2016

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min Temperature (°C)	23.2	22.2	23.4	23.7	23.7	22.4	22.2	22.1	22.4	22.8	22.2	22.8
Average Daily Min Temperature (°C)	25.5	25.1	25.9	25.7	25.4	24.9	24.7	25.2	24.3	24.7	24.4	24.4
Average Temperature (°C)	28.1	27.8	28.9	28.9	28.6	27.7	27.9	28.5	28.0	27.9	27.2	27.3
Average Daily Max Temperature (°C)	32.6	31.9	33.7	34.5	33.9	32.2	32.4	32.8	32.7	32.4	31.6	32.3
Max Temperature	34.3	34.0	34.9	35.7	35.5	34.9	34.7	33.9	35.8	34.6	34.1	34.7
Average Dew Point Temperature (°C)	24.6	23.1	23.8	24.4	—	—	—	—	—	—	—	—
Min Relative Humidity (%)	50.4	47.2	45.7	45.0	—	—	—	45.4	57.0	47.9	77.2	51.5
Average Relative Humidity (%)	79.7	77.1	74.5	70.9	—	—	—	—	—	—	—	—
Average Wind Speed (m/s)	1.5	1.8	1.7	1.2	1.0	1.0	1.1	1.3	1.2	1.1	1.0	1.3
Prevailing Wind Direction	NE	NNE	NE	NE	NW	S	S	S	S	W	NW	NNW
Maximum Gust (m/s)	13.5	11.6	10.3	10.2	11.2	10.3	11.1	11.4	13.0	10.9	9.6	11.2
Total Rainfall (mm)	119.2	184.4	114.8	241.2	257.0	261.0	181.2	92.0	103.4	184.0	201.4	193.0
Highest Daily Rainfall (mm)	26.4	91.0	44.2	39.6	81.2	56.2	42.4	33.0	20.6	69.6	29.8	32.6

**Average Temperature Khatib
2016**



Rainfall Khatib 2016

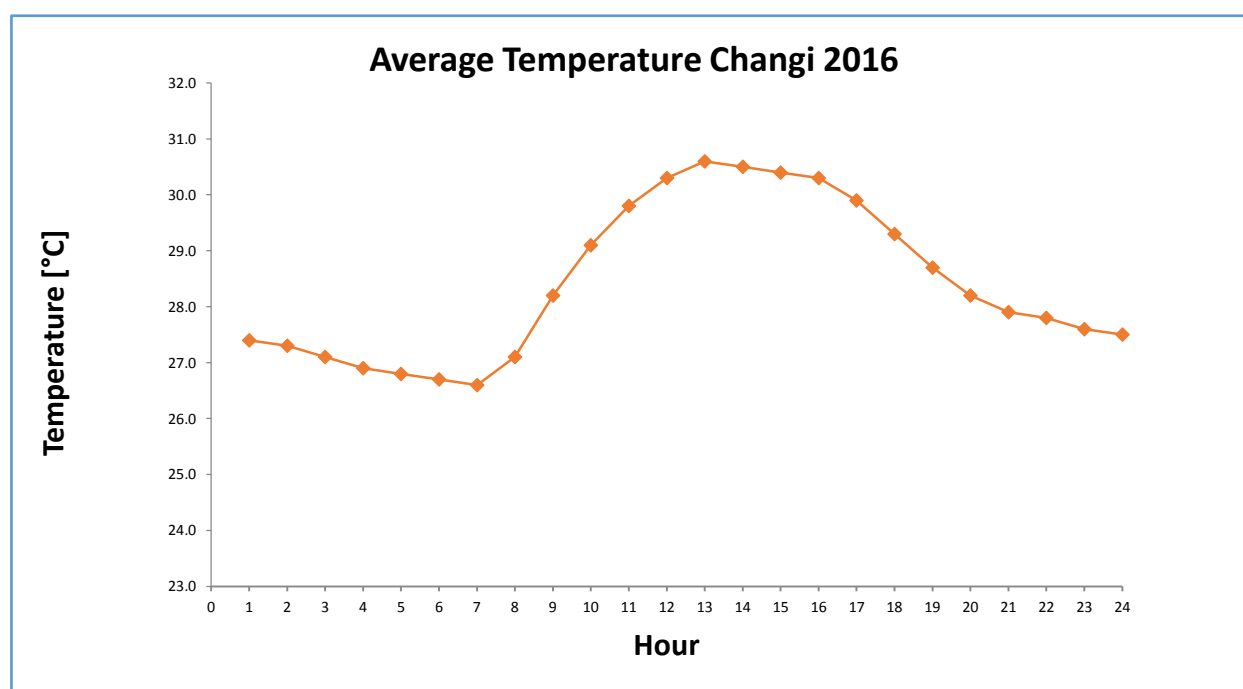


■ No Data
— Defective Data

10.2. Hourly Observation

S24 Changi 2016

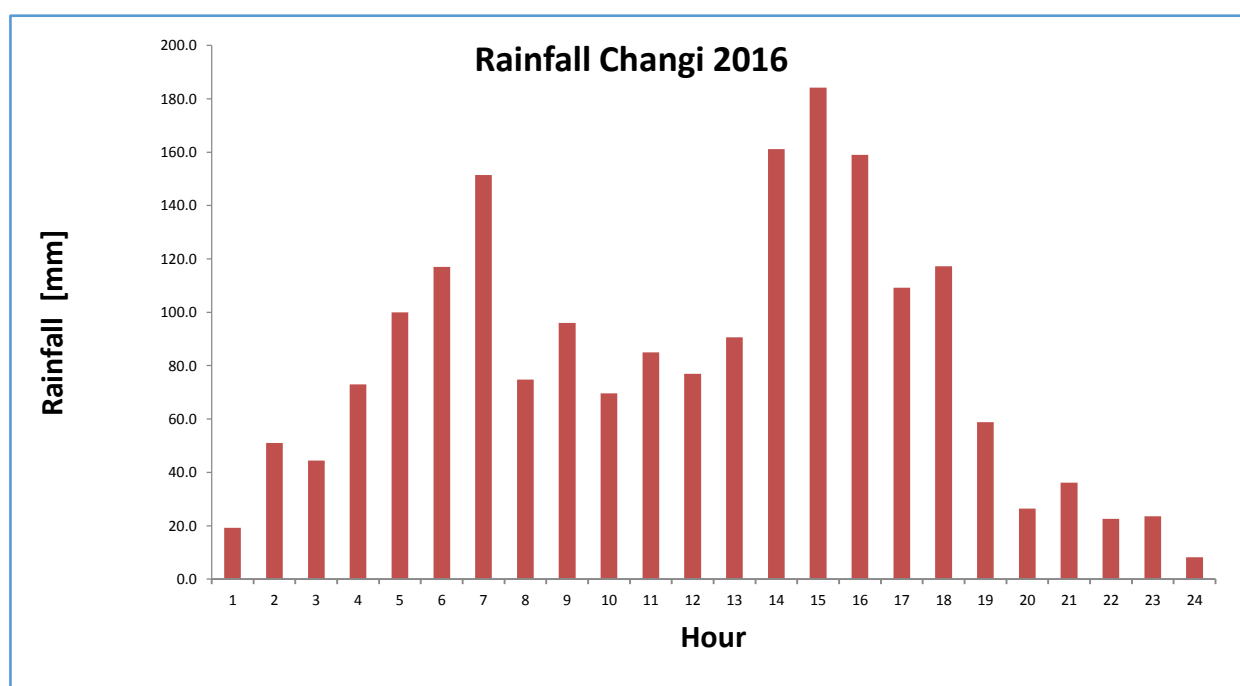
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.7	23.6	23.9	22.5	22.8	21.8	22.5	22.9	23.2	24.4	23.9	23.3
Max Dry Bulb Temperature (°C)	29.9	29.7	29.5	29.3	29.2	29.1	29.3	30.1	31.3	32.4	33.3	33.5
Average Dry Bulb Temperature (°C)	27.4	27.3	27.1	26.9	26.8	26.7	26.6	27.1	28.2	29.1	29.8	30.3
Average Dew Point Temperature (°C)	23.9	24.0	24.1	24.1	24.1	24.0	24.0	24.2	24.1	23.8	23.5	23.2
Average Relative Humidity (%)	81.6	82.7	83.8	84.8	85.4	85.9	86.1	84.3	78.9	73.7	69.7	66.3
Average Wind Speed (m/s)	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.7	2.1	2.6	2.8	3.0
Max Gust (m/s)	13.0	13.1	11.5	10.6	15.0	14.2	18.1	14.2	12.4	12.5	18.0	14.6
Rainfall (mm)	19.2	51.0	44.4	73.0	100.0	117.0	151.4	74.8	96.0	69.6	85.0	77.0



- No Data
- Defective Data

S24 Changi 2016

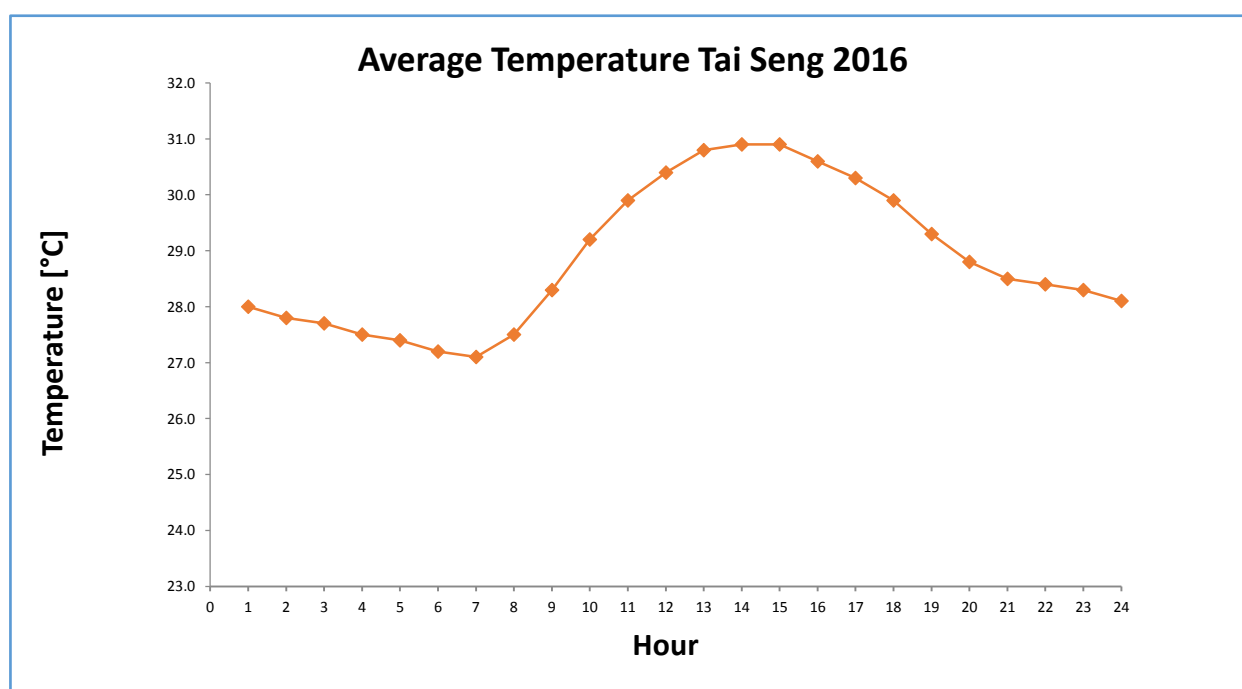
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.4	23.2	23.4	24.3	24.2	24.2	23.3	23.3	23.7	24.5	24.6	24.0
Max Dry Bulb Temperature (°C)	33.8	34.9	34.4	34.2	33.9	33.4	31.9	30.9	30.4	30.2	30.0	29.9
Average Dry Bulb Temperature (°C)	30.6	30.5	30.4	30.3	29.9	29.3	28.7	28.2	27.9	27.8	27.6	27.5
Average Dew Point Temperature (°C)	23.0	22.8	22.8	22.9	22.7	22.9	23.1	23.3	23.5	23.6	23.8	23.9
Average Relative Humidity (%)	64.6	64.4	64.9	65.7	66.5	69.2	72.3	75.2	77.3	78.7	79.8	80.7
Average Wind Speed (m/s)	3.2	3.3	3.4	3.4	3.2	2.9	2.6	2.3	2.1	2.0	1.8	1.8
Max Gust (m/s)	16.3	13.0	12.7	13.0	14.9	13.1	11.6	12.2	10.1	12.7	10.0	10.7
Rainfall (mm)	90.6	161.2	184.2	159.0	109.2	117.3	58.8	26.4	36.2	22.6	23.6	8.2



- No Data
- Defective Data

S43 Tai Seng 2016

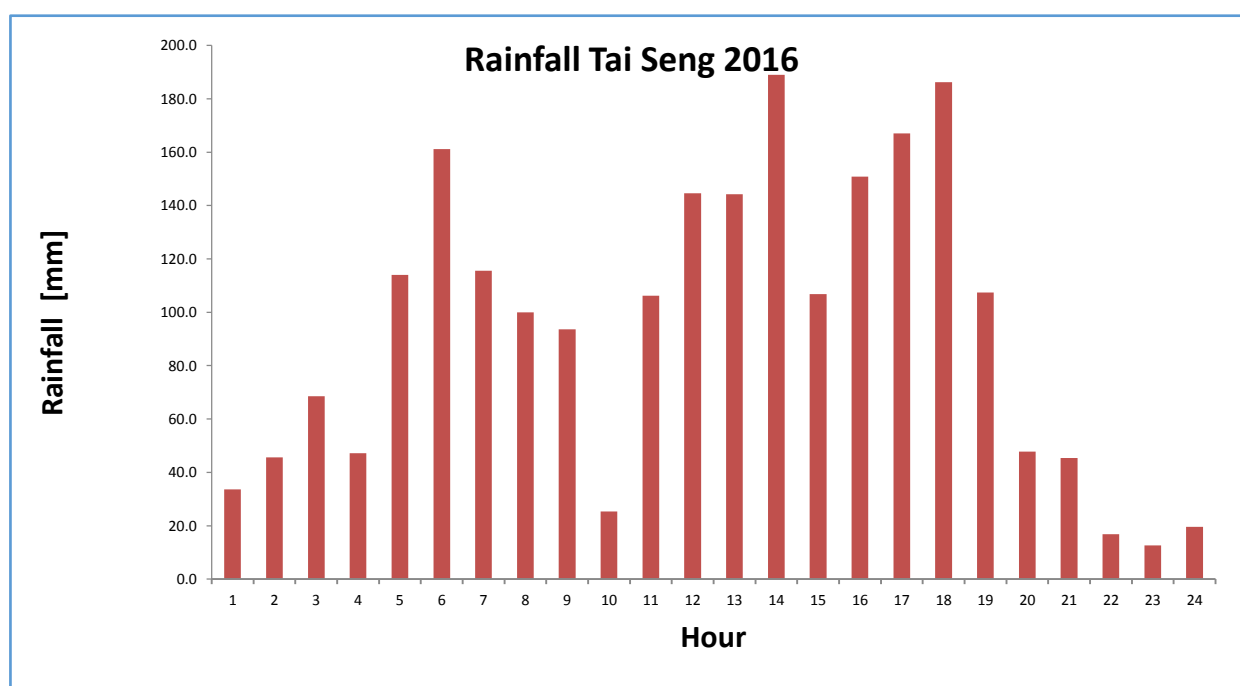
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.5	24.1	24.4	23.4	23.0	22.3	22.5	23.2	23.3	24.1	23.3	23.6
Max Dry Bulb Temperature (°C)	30.3	30.1	30.1	30.0	30.0	29.9	29.9	30.1	31.7	32.6	33.6	34.3
Average Dry Bulb Temperature (°C)	28.0	27.8	27.7	27.5	27.4	27.2	27.1	27.5	28.3	29.2	29.9	30.4
Average Dew Point Temperature (°C)	24.6	24.6	24.6	24.6	24.6	24.5	24.5	24.5	24.5	24.2	23.9	23.6
Average Relative Humidity (%)	82.0	82.9	83.7	84.4	84.9	85.3	85.7	84.0	79.8	75.0	70.5	67.6
Average Wind Speed (m/s)	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.6	2.0	2.3	2.5	2.6
Max Gust (m/s)	10.9	10.2	19.7	11.8	13.9	14.2	14.9	14.2	16.1	10.9	12.7	14.5
Rainfall (mm)	33.6	45.6	68.6	47.2	114.0	161.2	115.6	100.0	93.6	25.4	106.2	144.6



- No Data
- Defective Data

S43 Tai Seng 2016

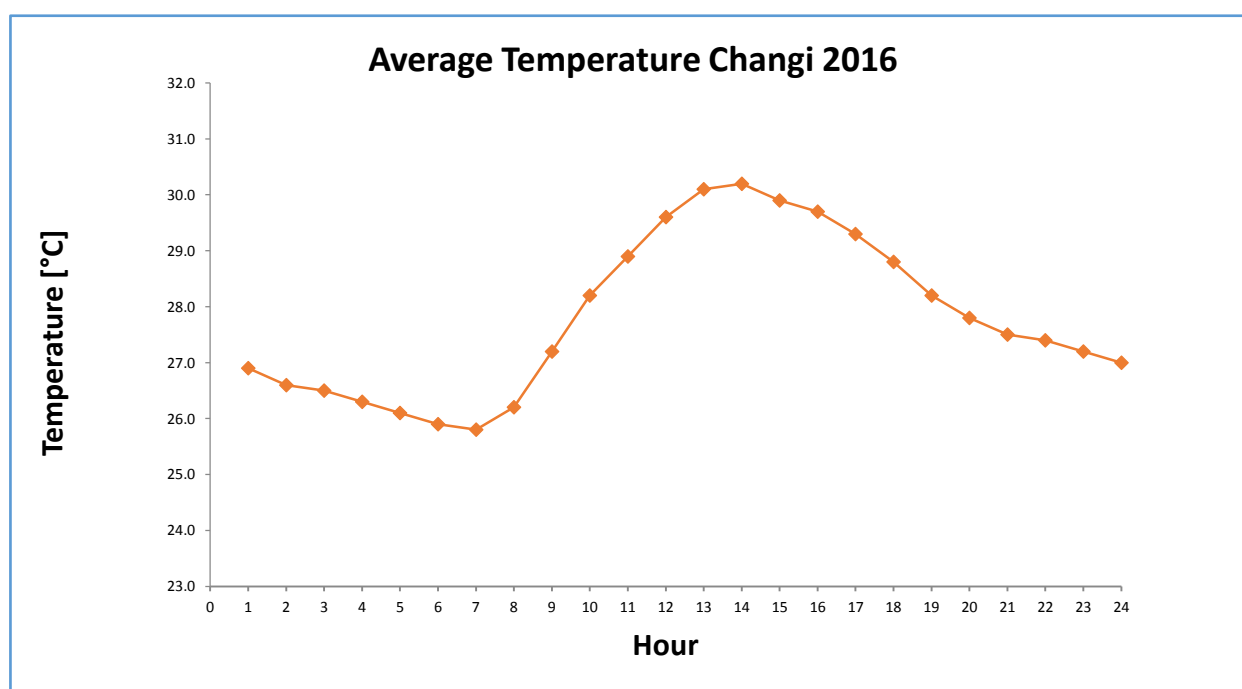
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.7	23.4	23.6	24.3	24.0	23.5	23.3	23.8	24.3	24.0	24.6	24.6
Max Dry Bulb Temperature (°C)	34.6	35.2	35.4	35.5	35.2	34.6	34.2	33.0	32.5	31.8	31.2	30.6
Average Dry Bulb Temperature (°C)	30.8	30.9	30.9	30.6	30.3	29.9	29.3	28.8	28.5	28.4	28.3	28.1
Average Dew Point Temperature (°C)	23.4	23.3	23.3	23.4	23.3	23.4	23.6	23.9	24.1	24.3	24.4	24.5
Average Relative Humidity (%)	65.7	64.8	65.1	66.3	67.2	69.1	72.2	75.3	77.5	78.9	79.8	81.0
Average Wind Speed (m/s)	2.7	2.8	2.8	2.8	2.6	2.5	2.3	2.0	1.8	1.7	1.6	1.5
Max Gust (m/s)	15.2	22.0	13.3	14.0	13.5	13.2	20.1	13.2	11.4	22.8	10.6	9.9
Rainfall (mm)	144.2	189.0	106.8	150.8	167.0	186.2	107.4	47.8	45.4	16.8	12.6	19.6



- No Data
- Defective Data

S44 Jurong (West) 2016

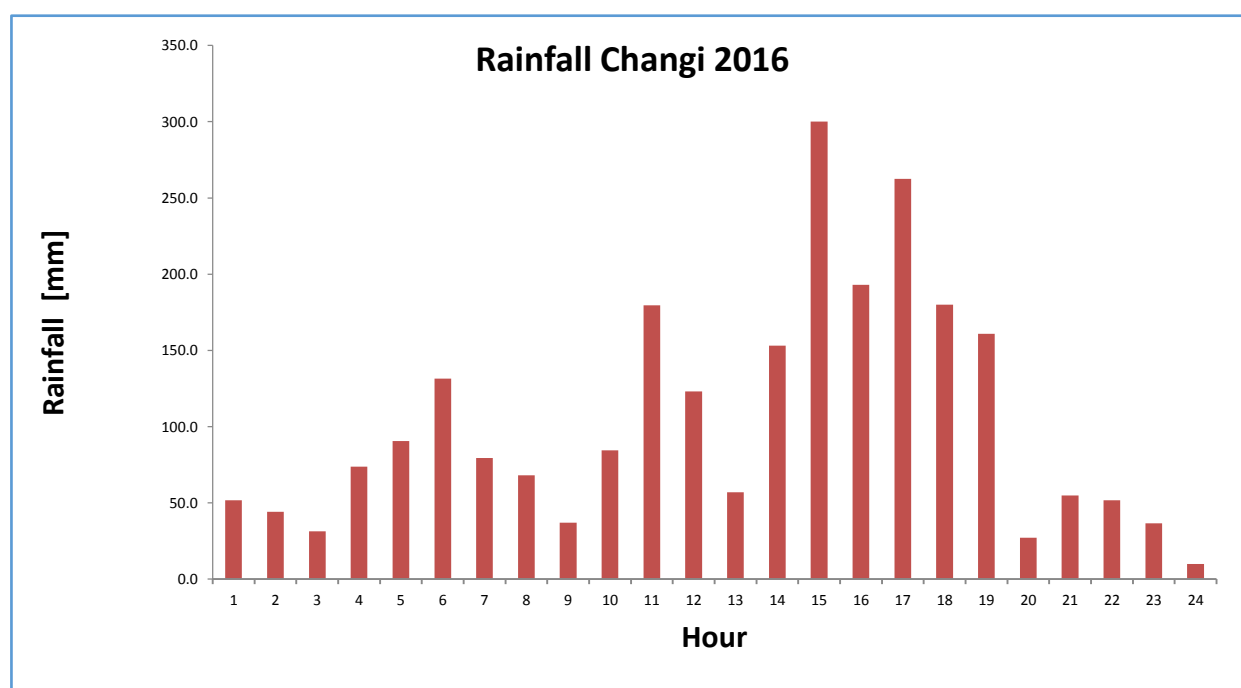
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.0	23.5	23.5	23.0	22.2	22.1	22.1	22.2	22.7	23.1	22.2	22.4
Max Dry Bulb Temperature (°C)	29.8	29.4	29.4	29.4	29.3	29.2	28.8	29.0	30.1	31.9	32.4	34.0
Average Dry Bulb Temperature (°C)	26.9	26.6	26.5	26.3	26.1	25.9	25.8	26.2	27.2	28.2	28.9	29.6
Average Dew Point Temperature (°C)	24.1	24.2	24.2	24.2	24.3	24.0	24.0	24.3	24.2	23.7	23.2	22.8
Average Relative Humidity (%)	83.7	85.0	85.1	86.0	87.5	86.7	87.6	87.0	81.9	75.1	69.8	66.2
Average Wind Speed (m/s)	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.9	2.3	2.5	2.6
Max Gust (m/s)	16.3	14.7	16.5	16.7	18.9	19.5	16.8	13.9	10.5	17.3	14.4	13.6
Rainfall (mm)	51.8	44.2	31.4	73.8	90.6	131.4	79.4	68.2	37.0	84.4	179.6	123.2



- No Data
- Defective Data

S44 Jurong (West) 2016

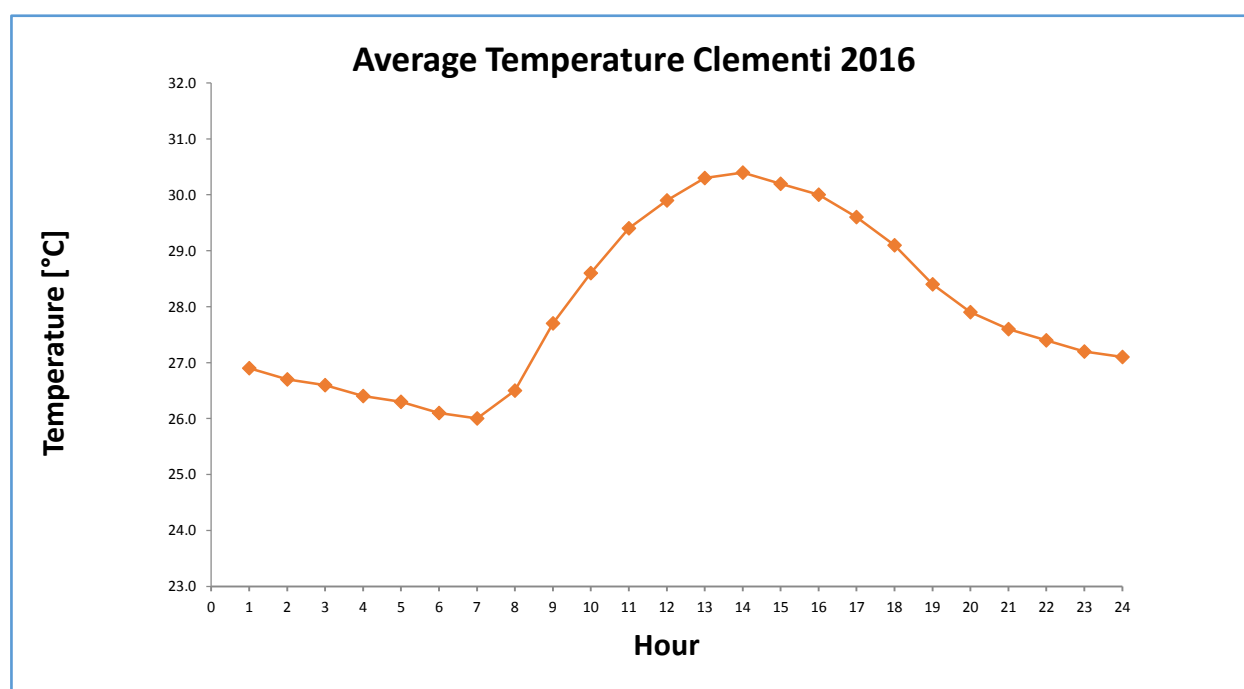
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	22.7	23.0	22.6	22.2	22.2	23.1	21.9	21.7	22.7	22.5	23.7	23.6
Max Dry Bulb Temperature (°C)	34.4	34.9	35.4	35.1	34.4	34.6	33.4	31.9	30.9	30.6	30.5	30.2
Average Dry Bulb Temperature (°C)	30.1	30.2	29.9	29.7	29.3	28.8	28.2	27.8	27.5	27.4	27.2	27.0
Average Dew Point Temperature (°C)	22.6	22.4	22.5	22.5	22.6	22.8	23.0	23.3	23.5	23.6	23.9	24.0
Average Relative Humidity (%)	64.0	63.2	63.9	64.7	66.8	69.0	72.5	75.9	77.7	79.3	81.1	82.5
Average Wind Speed (m/s)	2.7	2.8	2.8	2.7	2.5	2.2	2.0	1.8	1.8	1.7	1.6	1.6
Max Gust (m/s)	13.4	13.8	14.9	17.5	13.1	14.7	25.2	11.4	14.8	20.4	9.3	19.0
Rainfall (mm)	57.0	153.2	300.0	193.0	262.6	180.0	160.8	27.2	54.8	51.8	36.6	10.0



■ No Data
— Defective Data

S50 Clementi 2016

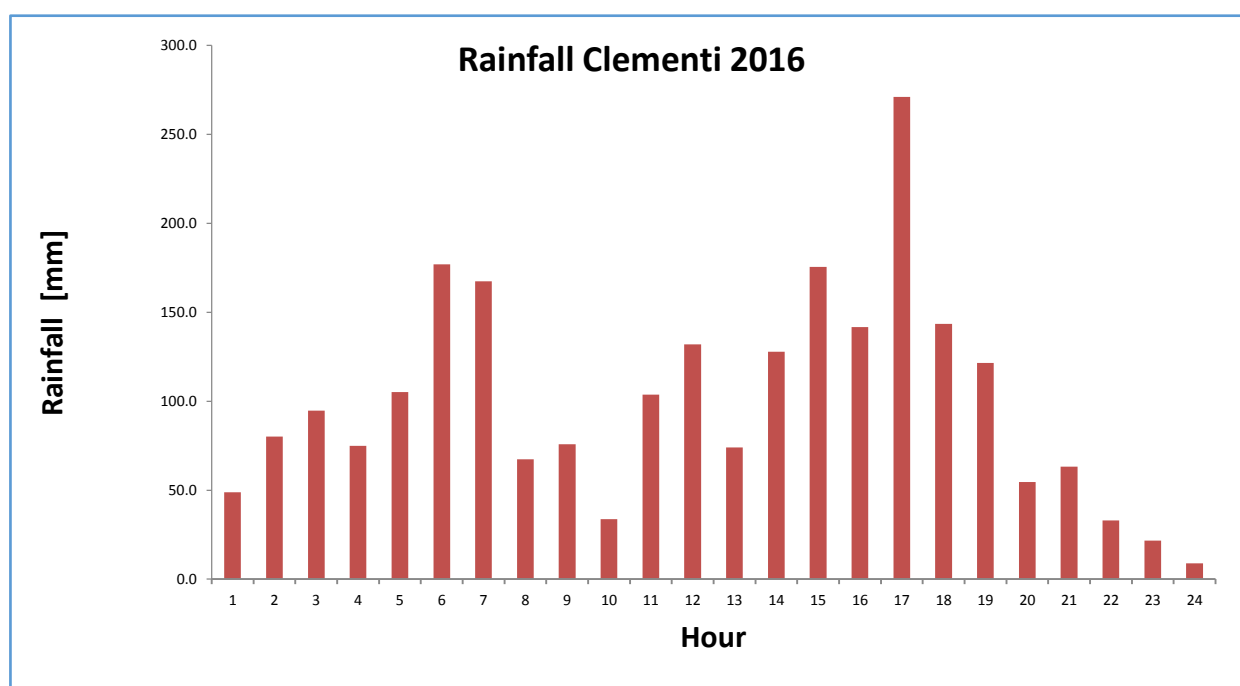
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.4	23.1	23.0	23.4	21.8	22.0	22.4	22.3	21.9	22.8	21.3	21.7
Max Dry Bulb Temperature (°C)	29.5	29.3	29.2	29.1	29.0	28.8	28.7	28.9	31.1	32.0	33.3	34.4
Average Dry Bulb Temperature (°C)	26.9	26.7	26.6	26.4	26.3	26.1	26.0	26.5	27.7	28.6	29.4	29.9
Average Dew Point Temperature (°C)	24.4	24.4	24.4	24.4	24.3	24.3	24.3	24.4	24.5	24.4	24.3	24.1
Average Relative Humidity (%)	86.4	87.3	88.0	88.7	89.2	89.8	90.1	88.5	83.3	78.5	74.4	71.7
Average Wind Speed (m/s)	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.7	1.6	1.7	1.7	1.8
Max Gust (m/s)	12.8	12.4	9.7	10.6	10.4	11.7	11.8	12.5	9.6	10.5	11.4	14.2
Rainfall (mm)	48.8	80.1	94.7	75.0	105.1	177.0	167.4	67.3	75.8	33.8	103.8	132.0



- No Data
- Defective Data

S50 Clementi 2016

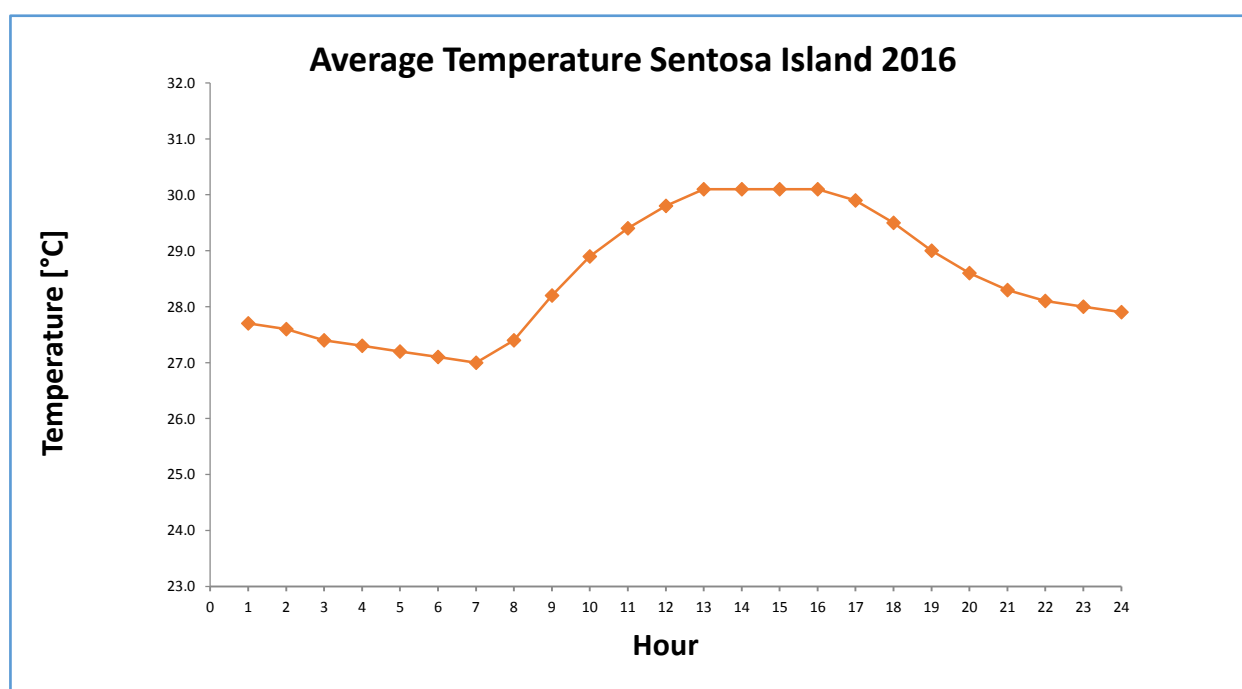
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.2	23.1	23.0	23.4	22.6	22.6	22.7	22.6	23.1	23.6	23.7	23.9
Max Dry Bulb Temperature (°C)	35.6	35.7	36.4	35.9	34.2	34.1	33.1	31.9	31.6	30.8	30.3	29.9
Average Dry Bulb Temperature (°C)	30.3	30.4	30.2	30.0	29.6	29.1	28.4	27.9	27.6	27.4	27.2	27.1
Average Dew Point Temperature (°C)	24.0	23.9	24.0	23.9	23.9	23.9	24.0	24.1	24.2	24.3	24.3	24.4
Average Relative Humidity (%)	69.7	69.4	70.0	71.0	72.3	74.5	77.6	80.1	82.1	83.4	84.4	85.4
Average Wind Speed (m/s)	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0
Max Gust (m/s)	12.2	14.0	12.8	12.0	12.2	13.0	11.8	10.5	10.5	10.8	9.4	10.8
Rainfall (mm)	74.0	127.8	175.6	141.6	271.0	143.4	121.6	54.6	63.2	33.0	21.6	8.8



- No Data
- Defective Data

S60 Sentosa Island 2016

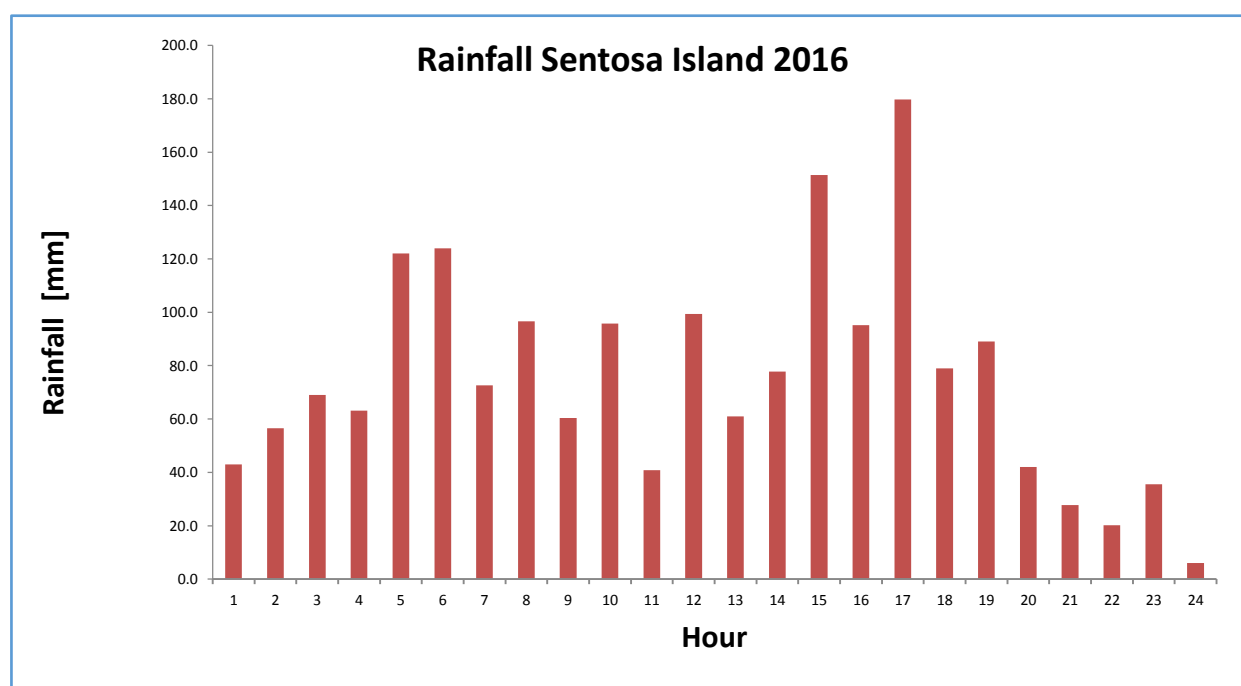
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.0	23.7	23.6	24.1	22.0	22.6	22.1	22.7	22.5	23.2	23.7	23.4
Max Dry Bulb Temperature (°C)	29.7	29.5	29.6	29.6	29.4	29.3	29.3	29.9	31.4	31.9	33.0	33.4
Average Dry Bulb Temperature (°C)	27.7	27.6	27.4	27.3	27.2	27.1	27.0	27.4	28.2	28.9	29.4	29.8
Average Dew Point Temperature (°C)	23.7	23.8	24.0	24.1	24.1	24.1	24.1	24.0	23.6	23.1	22.7	22.3
Average Relative Humidity (%)	79.1	80.6	82.3	83.2	83.9	84.4	85.1	82.6	76.7	72.0	68.8	65.5
Average Wind Speed (m/s)	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.9	2.2	2.5	2.6
Max Gust (m/s)	13.3	12.4	12.0	12.0	12.8	13.3	18.0	12.6	11.2	9.5	12.4	10.3
Rainfall (mm)	43.0	56.6	69.0	63.2	122.0	124.0	72.6	96.6	60.4	95.8	40.8	99.4



- No Data
- Defective Data

S60 Sentosa Island 2016

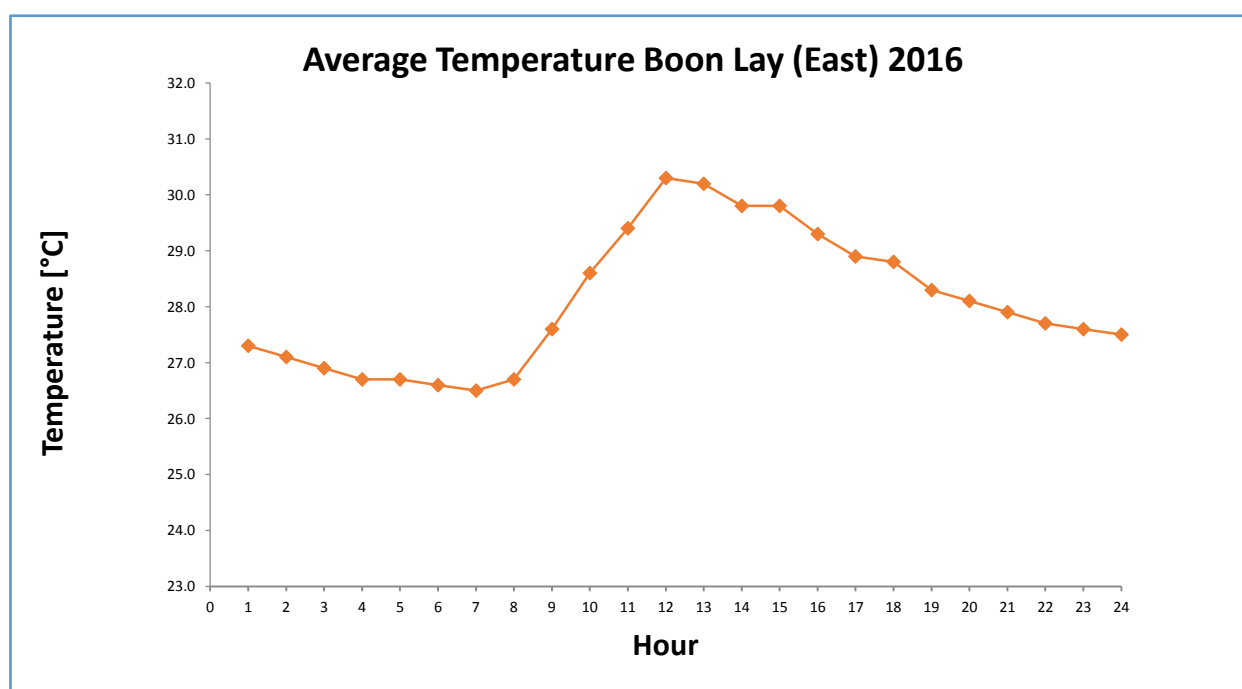
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.6	22.7	23.5	23.6	22.5	22.5	23.7	23.3	23.4	23.8	23.2	23.6
Max Dry Bulb Temperature (°C)	34.3	35.3	35.3	34.2	34.3	33.6	33.1	31.7	31.1	30.7	30.4	30.2
Average Dry Bulb Temperature (°C)	30.1	30.1	30.1	30.1	29.9	29.5	29.0	28.6	28.3	28.1	28.0	27.9
Average Dew Point Temperature (°C)	22.1	22.0	21.9	21.9	21.8	21.9	22.1	22.5	22.8	23.1	23.4	23.6
Average Relative Humidity (%)	63.8	63.0	63.0	63.5	63.5	65.0	67.8	70.5	72.8	74.8	76.4	77.9
Average Wind Speed (m/s)	2.7	2.7	2.6	2.5	2.3	2.0	1.7	1.6	1.6	1.5	1.5	1.5
Max Gust (m/s)	12.6	11.9	11.8	11.8	11.3	9.9	9.9	10.3	8.6	8.9	13.2	8.8
Rainfall (mm)	61.0	77.8	151.4	95.2	179.8	79.0	89.0	42.0	27.8	20.2	35.6	6.0



- No Data
- Defective Data

S86 Boon Lay (East) 2016

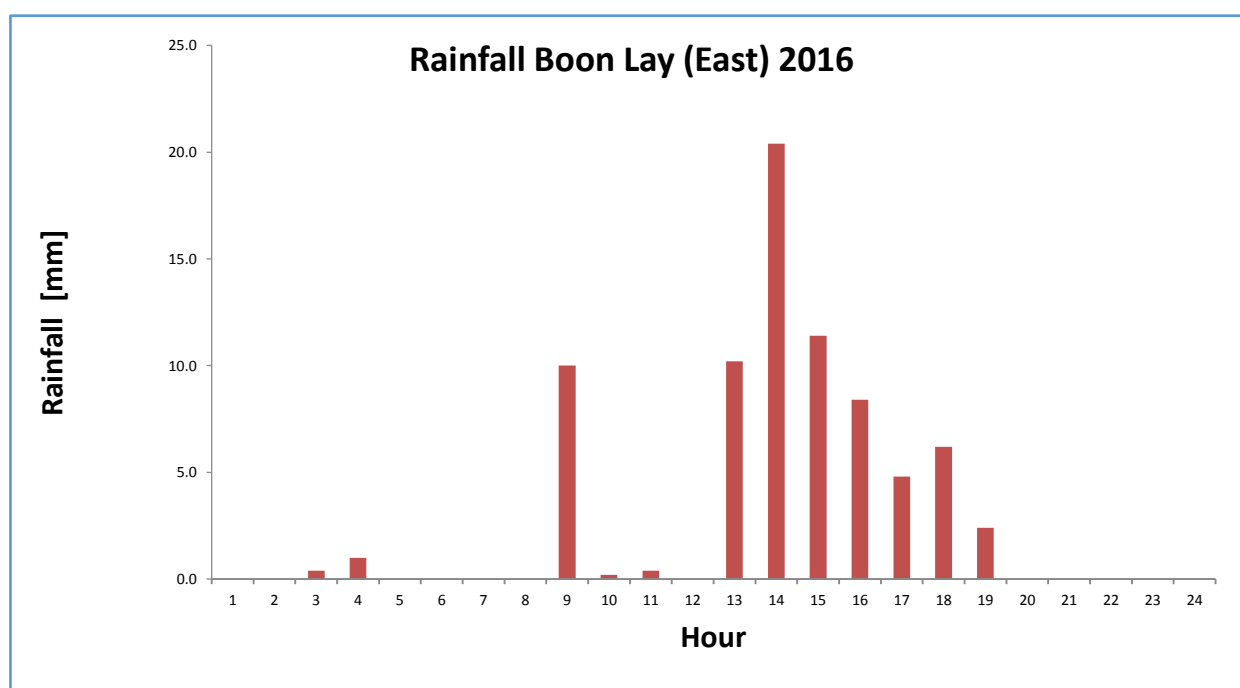
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	25.8	25.5	25.6	25.0	24.9	24.9	24.9	25.3	24.4	24.9	25.7	26.4
Max Dry Bulb Temperature (°C)	28.1	28.1	27.9	27.8	27.7	27.4	27.4	27.6	28.7	29.9	30.6	31.7
Average Dry Bulb Temperature (°C)	27.3	27.1	26.9	26.7	26.7	26.6	26.5	26.7	27.6	28.6	29.4	30.3
Average Dew Point Temperature (°C)	25.3	25.3	25.4	25.3	25.4	25.4	25.4	25.4	25.4	24.9	24.3	23.4
Average Relative Humidity (%)	89.0	89.9	91.1	92.2	93.1	93.2	93.5	92.9	88.1	80.9	74.9	67.6
Average Wind Speed (m/s)	1.3	1.3	1.4	1.3	1.3	1.4	1.4	1.5	1.7	2.0	2.0	2.1
Max Gust (m/s)	5.1	5.0	6.2	5.2	5.7	5.5	5.8	5.3	6.8	7.5	7.1	7.8
Rainfall (mm)	0.0	0.0	0.4	1.0	0.0	0.0	0.0	0.0	10.0	0.2	0.4	0.0



- No Data
- Defective Data

S86 Boon Lay (East) 2016

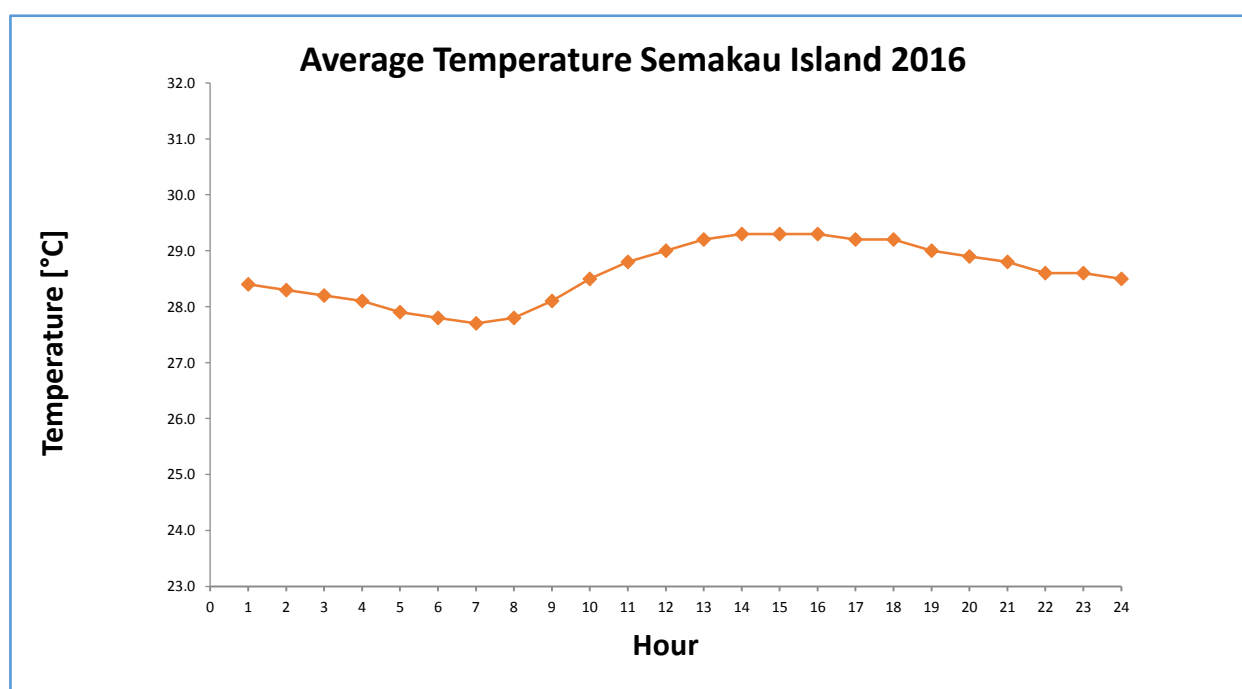
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	25.5	23.6	23.8	24.5	25.0	25.6	25.6	25.7	25.7	25.5	25.4	25.5
Max Dry Bulb Temperature (°C)	32.4	33.1	33.6	33.1	32.6	31.9	31.1	30.0	29.2	28.7	28.4	28.2
Average Dry Bulb Temperature (°C)	30.2	29.8	29.8	29.3	28.9	28.8	28.3	28.1	27.9	27.7	27.6	27.5
Average Dew Point Temperature (°C)	23.4	23.4	23.5	23.8	24.2	24.2	24.2	24.3	24.3	24.6	25.0	25.1
Average Relative Humidity (%)	68.6	70.4	70.6	73.9	77.2	77.3	79.2	80.6	81.2	83.5	85.8	87.1
Average Wind Speed (m/s)	2.3	2.3	2.1	2.2	2.0	2.0	1.9	1.7	1.5	1.5	1.6	1.5
Max Gust (m/s)	8.5	9.5	8.5	22.2	8.0	10.9	8.4	8.1	7.0	7.3	7.0	5.8
Rainfall (mm)	10.2	20.4	11.4	8.4	4.8	6.2	2.4	0.0	0.0	0.0	0.0	0.0



- No Data
- Defective Data

S102 Semakau Island 2016

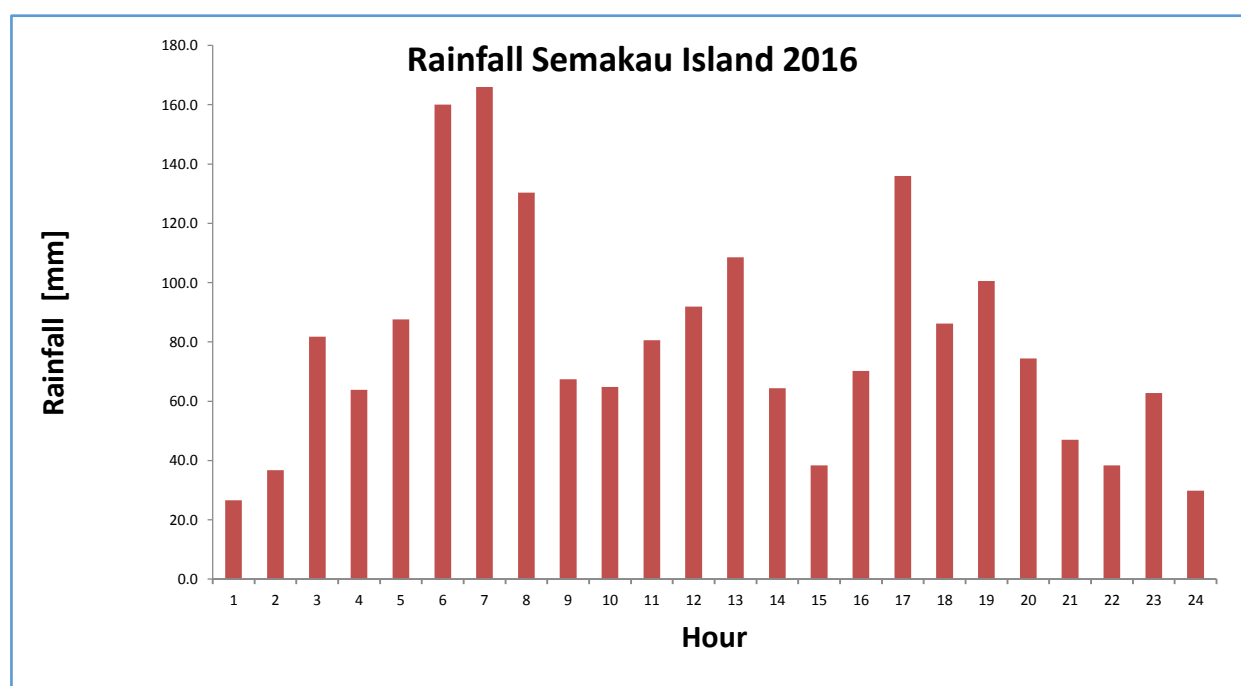
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.6	24.3	24.0	24.3	23.1	23.4	22.7	22.4	23.8	23.9	23.6	23.7
Max Dry Bulb Temperature (°C)	30.4	30.4	30.4	30.3	30.2	30.1	30.0	30.3	30.7	31.2	31.8	32.3
Average Dry Bulb Temperature (°C)	28.4	28.3	28.2	28.1	27.9	27.8	27.7	27.8	28.1	28.5	28.8	29.0
Average Dew Point Temperature (°C)	24.5	24.5	24.5	24.5	24.5	24.4	24.4	24.4	24.3	24.2	24.1	24.1
Average Relative Humidity (%)	79.6	80.3	80.9	81.4	81.6	82.2	82.5	82.0	80.1	77.9	76.2	75.1
Average Wind Speed (m/s)	4.6	4.8	5.0	5.1	5.1	5.2	5.3	5.3	5.6	6.0	6.4	6.7
Max Gust (m/s)	25.6	23.7	26.6	26.1	24.5	28.6	31.9	25.7	21.7	23.3	25.8	21.5
Rainfall (mm)	26.6	36.8	81.8	63.8	87.6	160.0	166.0	130.4	67.4	64.8	80.6	91.9



- No Data
- Defective Data

S102 Semakau Island 2016

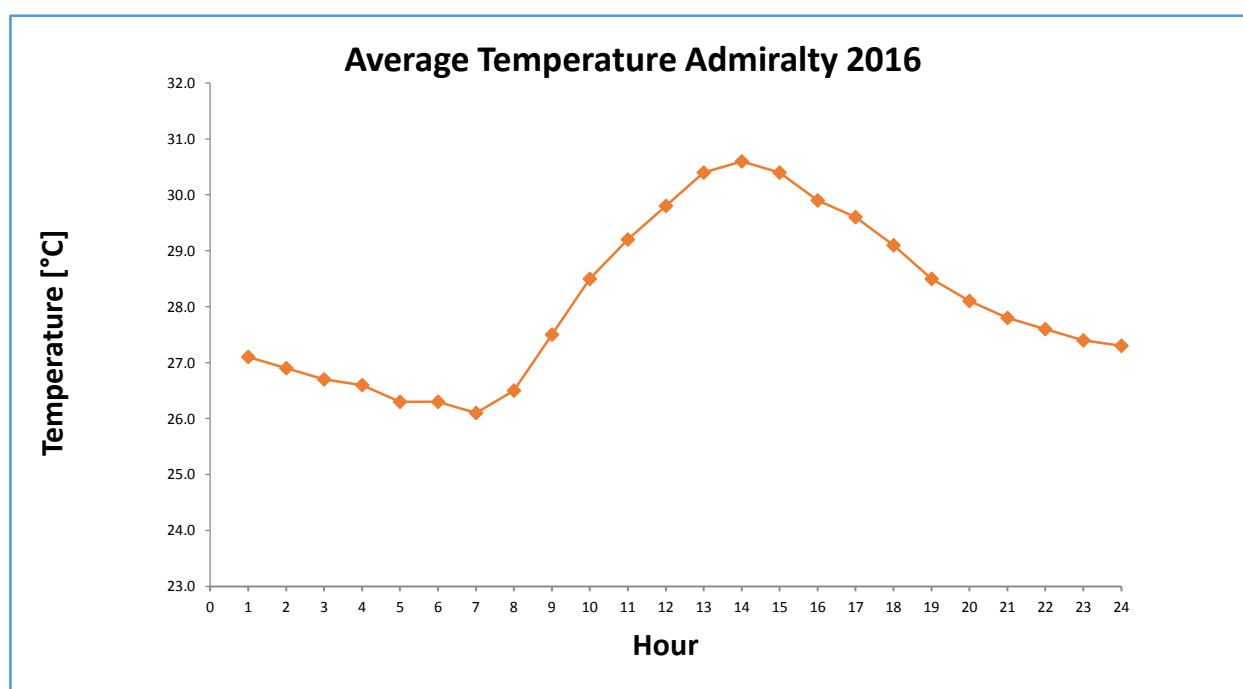
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.4	23.2	24.2	24.7	22.9	23.0	24.0	23.0	23.2	24.2	23.2	23.6
Max Dry Bulb Temperature (°C)	32.9	33.3	34.0	33.5	32.5	32.4	31.9	31.2	31.1	31.0	30.8	30.7
Average Dry Bulb Temperature (°C)	29.2	29.3	29.3	29.3	29.2	29.2	29.0	28.9	28.8	28.6	28.6	28.5
Average Dew Point Temperature (°C)	24.1	24.0	24.0	24.0	24.0	23.9	24.0	24.1	24.2	24.3	24.5	24.5
Average Relative Humidity (%)	74.1	73.9	73.7	73.6	73.8	73.9	74.8	75.5	76.4	77.7	78.6	79.2
Average Wind Speed (m/s)	7.1	7.4	7.5	7.3	6.8	6.3	5.8	5.4	5.0	4.8	4.7	4.6
Max Gust (m/s)	19.7	20.3	22.7	19.8	18.8	20.8	21.4	20.1	20.3	24.4	23.4	24.7
Rainfall (mm)	108.6	64.4	38.4	70.2	136.0	86.2	100.6	74.4	47.0	38.4	62.8	29.8



- No Data
- Defective Data

S104 Admiralty 2016

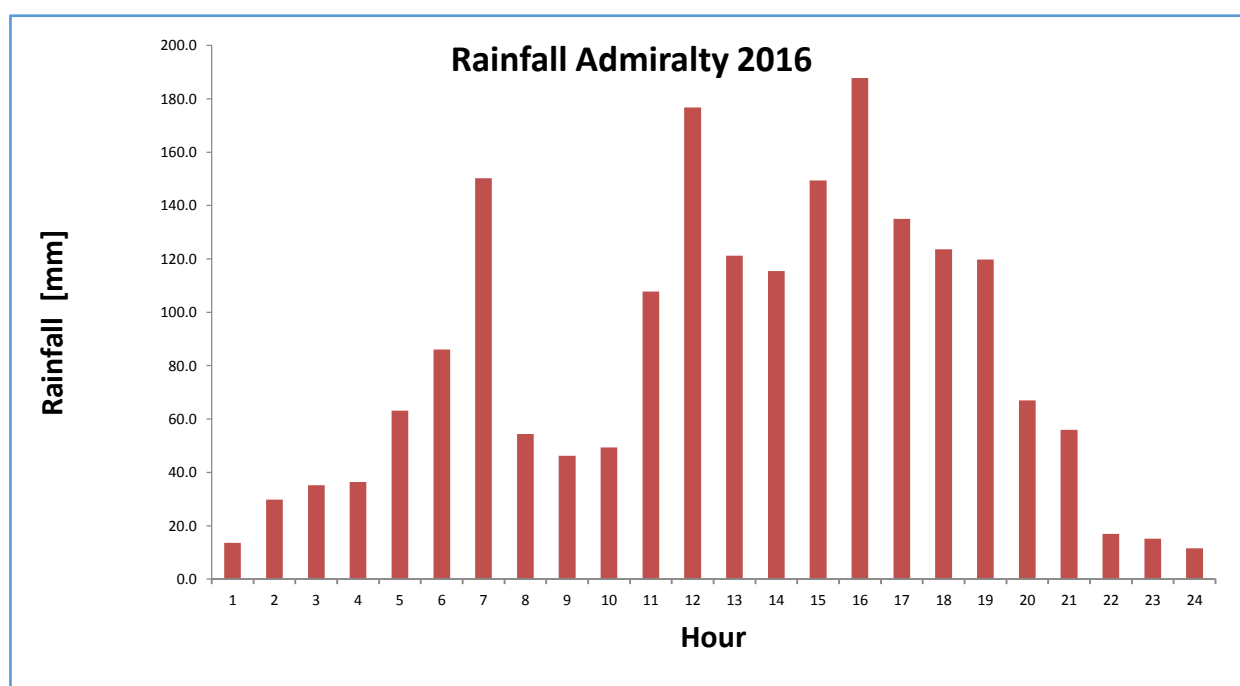
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.2	23.3	23.6	23.6	22.7	22.1	21.9	22.2	22.7	22.3	23.0	22.2
Max Dry Bulb Temperature (°C)	29.6	29.4	29.3	28.9	28.9	28.9	28.7	29.2	31.3	31.9	32.8	33.3
Average Dry Bulb Temperature (°C)	27.1	26.9	26.7	26.6	26.3	26.3	26.1	26.5	27.5	28.5	29.2	29.8
Average Dew Point Temperature (°C)	26.0	26.0	26.0	26.0	25.9	25.8	25.7	25.8	25.9	25.7	25.3	24.8
Average Relative Humidity (%)	93.9	94.9	95.9	96.5	97.2	97.3	97.3	96.0	91.2	85.6	79.5	75.1
Average Wind Speed (m/s)	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.7	2.0	2.4	2.6	2.8
Max Gust (m/s)	15.7	15.4	11.6	15.0	16.6	18.1	16.1	14.7	10.4	13.6	16.1	14.9
Rainfall (mm)	13.6	29.8	35.2	36.4	63.2	86.0	150.2	54.4	46.2	49.4	107.8	176.8



- No Data
- Defective Data

S104 Admiralty 2016

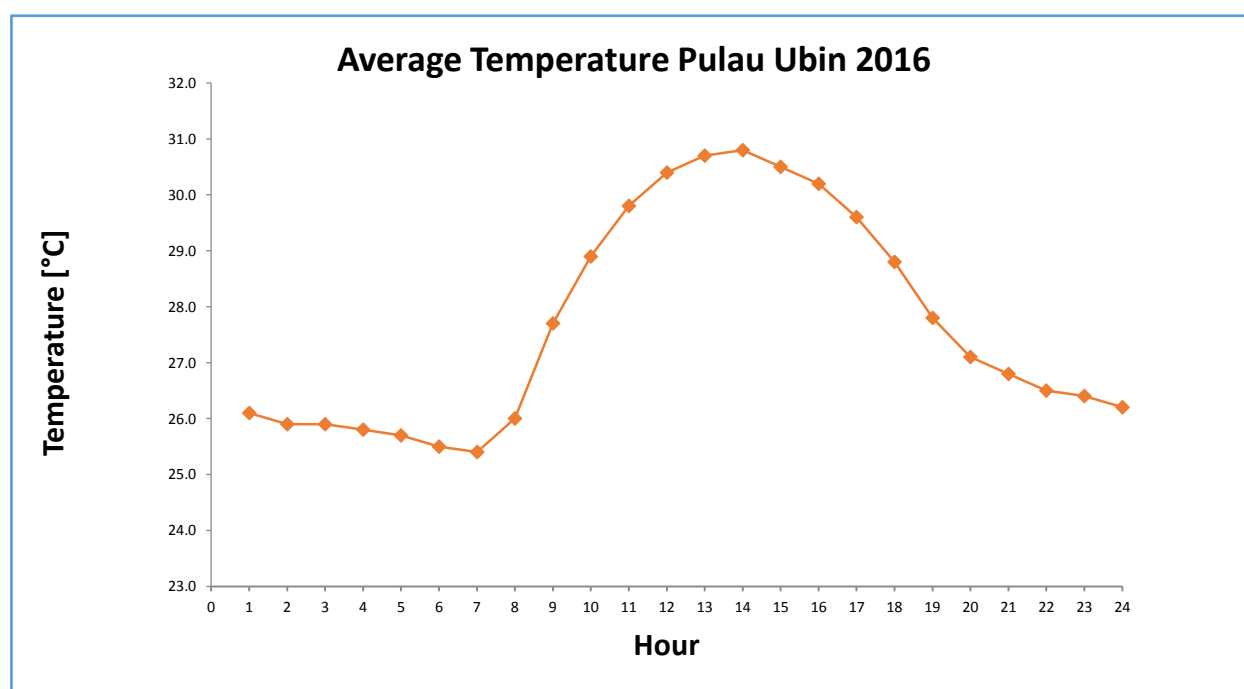
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	22.6	22.7	22.7	23.2	23.0	23.5	22.3	22.7	22.8	22.8	23.6	23.3
Max Dry Bulb Temperature (°C)	34.5	36.1	36.3	35.3	35.2	34.5	33.9	32.5	31.3	30.9	31.0	30.8
Average Dry Bulb Temperature (°C)	30.4	30.6	30.4	29.9	29.6	29.1	28.5	28.1	27.8	27.6	27.4	27.3
Average Dew Point Temperature (°C)	24.5	24.2	24.1	24.3	24.4	24.6	24.9	25.3	25.6	25.8	25.9	26.0
Average Relative Humidity (%)	71.6	70.1	70.6	73.4	75.3	77.8	81.9	85.6	88.5	90.4	91.6	92.7
Average Wind Speed (m/s)	2.9	3.0	3.1	3.2	3.0	2.8	2.6	2.4	2.3	2.1	2.0	2.0
Max Gust (m/s)	16.1	16.0	15.4	15.6	17.9	14.4	13.6	16.1	14.8	14.8	12.3	10.1
Rainfall (mm)	121.2	115.4	149.4	187.8	135.0	123.6	119.8	67.0	56.0	17.0	15.2	11.6



- No Data
- Defective Data

S106 Pulau Ubin 2016

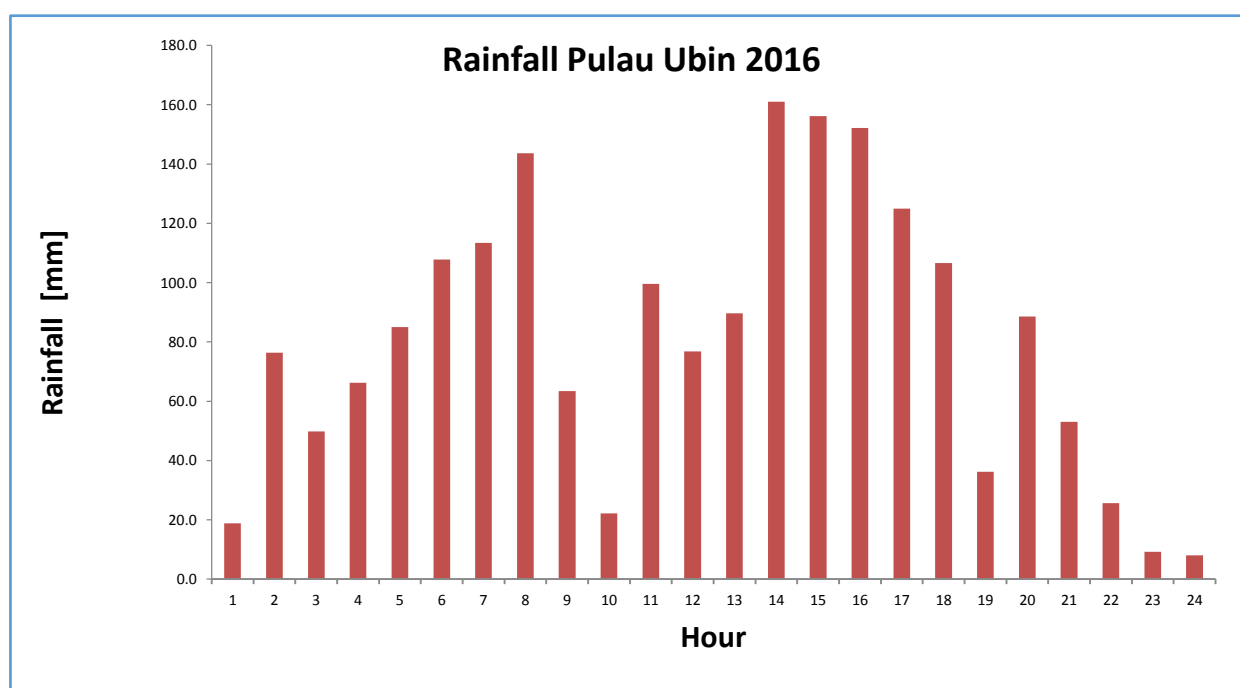
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.3	22.7	23.1	23.2	22.6	22.2	21.9	22.1	22.2	22.7	24.0	23.1
Max Dry Bulb Temperature (°C)	28.7	28.4	28.5	28.2	28.1	28.0	28.1	29.1	31.0	32.6	34.7	34.3
Average Dry Bulb Temperature (°C)	26.1	25.9	25.9	25.8	25.7	25.5	25.4	26.0	27.7	28.9	29.8	30.4
Average Dew Point Temperature (°C)	25.6	25.6	25.6	25.5	25.4	25.3	25.2	25.7	26.0	25.9	25.7	25.5
Average Relative Humidity (%)	97.4	98.0	98.4	98.6	98.8	98.7	98.8	98.1	91.1	84.6	79.4	76.0
Average Wind Speed (m/s)	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.7	3.0	3.2	3.3
Max Gust (m/s)	11.3	12.4	11.8	10.9	13.9	12.4	11.5	11.1	10.1	10.9	10.4	11.9
Rainfall (mm)	18.8	76.4	49.8	66.2	85.0	107.8	113.4	143.6	63.4	22.2	99.6	76.8



- No Data
- Defective Data

S106 Pulau Ubin 2016

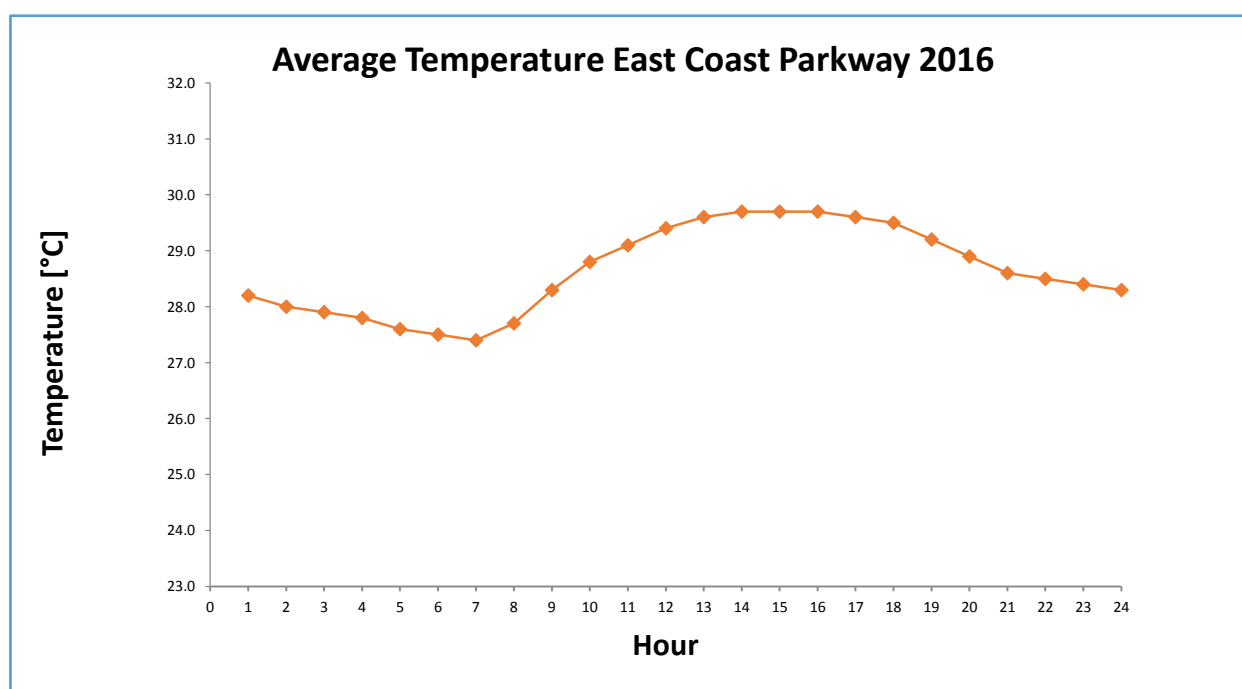
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.2	22.8	23.0	22.2	22.5	22.9	22.2	22.3	22.9	22.7	23.3	23.3
Max Dry Bulb Temperature (°C)	35.1	36.4	36.6	36.0	35.4	34.6	33.1	31.1	29.7	29.1	28.9	28.9
Average Dry Bulb Temperature (°C)	30.7	30.8	30.5	30.2	29.6	28.8	27.8	27.1	26.8	26.5	26.4	26.2
Average Dew Point Temperature (°C)	25.5	25.4	25.4	25.4	25.2	25.2	25.2	25.3	25.4	25.5	25.6	25.6
Average Relative Humidity (%)	74.6	74.2	75.2	76.5	78.4	81.7	86.2	90.1	92.4	94.3	95.5	96.6
Average Wind Speed (m/s)	3.3	3.3	3.2	3.1	3.0	2.8	2.5	2.3	2.2	2.1	2.0	2.0
Max Gust (m/s)	11.1	11.6	12.0	12.1	12.4	11.8	11.4	10.1	11.7	16.7	17.5	8.7
Rainfall (mm)	89.6	161.0	156.2	152.2	125.0	106.6	36.2	88.6	53.0	25.6	9.2	8.0



- No Data
- Defective Data

S107 East Coast Parkway 2016

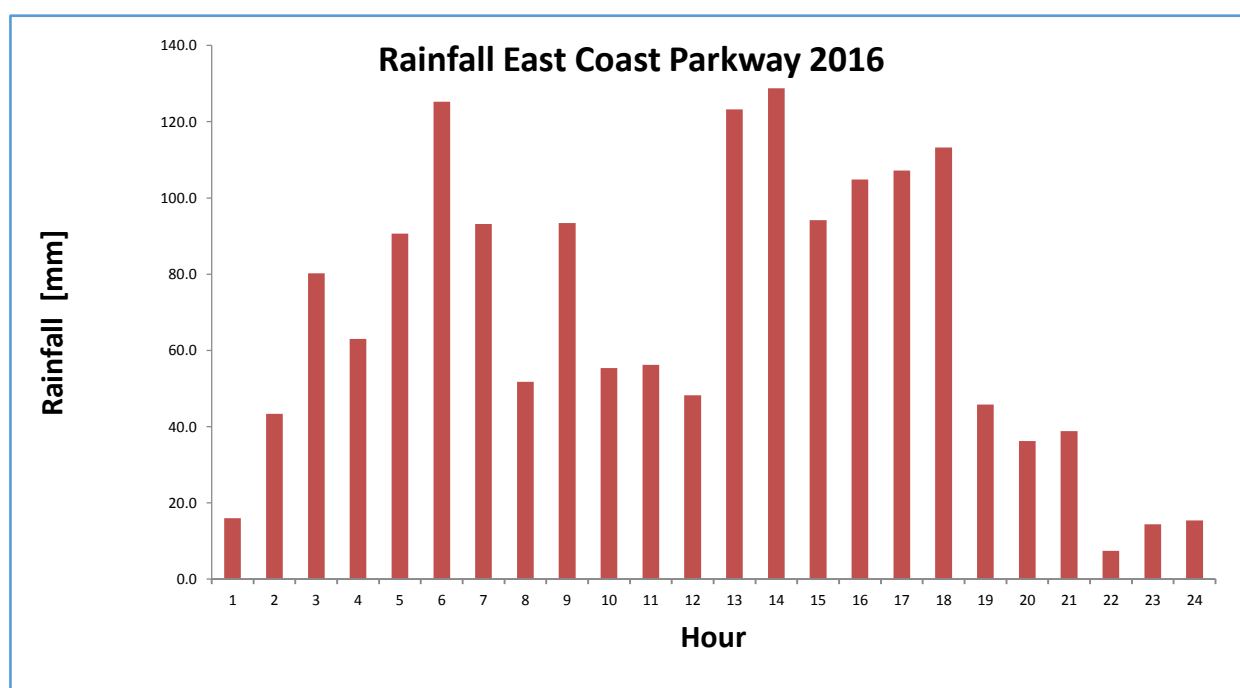
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	25.1	24.2	24.6	23.0	23.1	22.4	22.6	23.6	23.7	23.6	24.4	23.6
Max Dry Bulb Temperature (°C)	30.6	30.7	30.7	30.5	30.3	30.2	30.2	30.5	30.9	31.4	32.4	33.0
Average Dry Bulb Temperature (°C)	28.2	28.0	27.9	27.8	27.6	27.5	27.4	27.7	28.3	28.8	29.1	29.4
Average Dew Point Temperature (°C)	25.1	25.1	25.2	25.2	25.1	25.1	25.0	25.0	24.9	24.8	24.7	24.7
Average Relative Humidity (%)	83.7	84.9	85.5	86.0	86.4	86.6	86.7	85.3	82.0	79.6	77.3	76.0
Average Wind Speed (m/s)	2.1	2.0	2.1	2.1	2.2	2.3	2.2	2.3	2.6	3.0	3.3	3.7
Max Gust (m/s)	14.9	27.9	24.0	14.6	19.4	18.3	18.7	19.4	13.8	12.2	14.3	15.4
Rainfall (mm)	16.0	43.4	80.2	63.0	90.6	125.2	93.2	51.8	93.4	55.4	56.2	48.2



■ No Data
— Defective Data

S107 East Coast Parkway 2016

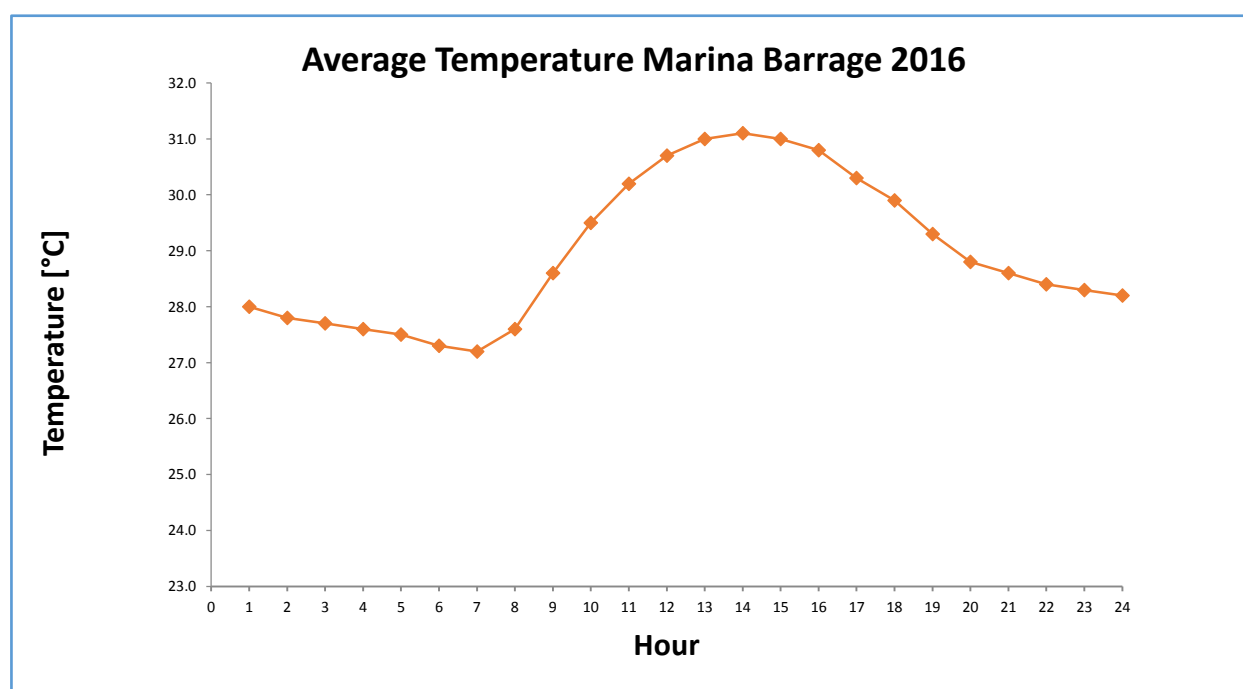
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.6	23.4	23.4	23.7	24.5	24.3	23.7	23.9	24.3	24.5	24.7	24.0
Max Dry Bulb Temperature (°C)	33.3	33.3	33.6	33.6	33.7	33.6	32.7	31.8	31.6	31.0	30.9	30.8
Average Dry Bulb Temperature (°C)	29.6	29.7	29.7	29.7	29.6	29.5	29.2	28.9	28.6	28.5	28.4	28.3
Average Dew Point Temperature (°C)	24.6	24.6	24.6	24.6	24.5	24.5	24.6	24.7	24.8	24.9	25.0	25.1
Average Relative Humidity (%)	75.0	74.6	74.5	74.6	74.7	75.0	76.7	78.4	80.2	81.2	82.2	83.0
Average Wind Speed (m/s)	4.0	4.2	4.3	4.1	3.8	3.4	3.0	2.7	2.5	2.3	2.2	2.1
Max Gust (m/s)	14.4	14.9	15.2	14.0	16.4	14.3	13.5	12.5	12.7	12.3	16.5	15.8
Rainfall (mm)	123.2	128.8	94.2	104.8	107.2	113.2	45.8	36.2	38.8	7.4	14.4	15.4



- No Data
- Defective Data

S108 Marina Barrage 2016

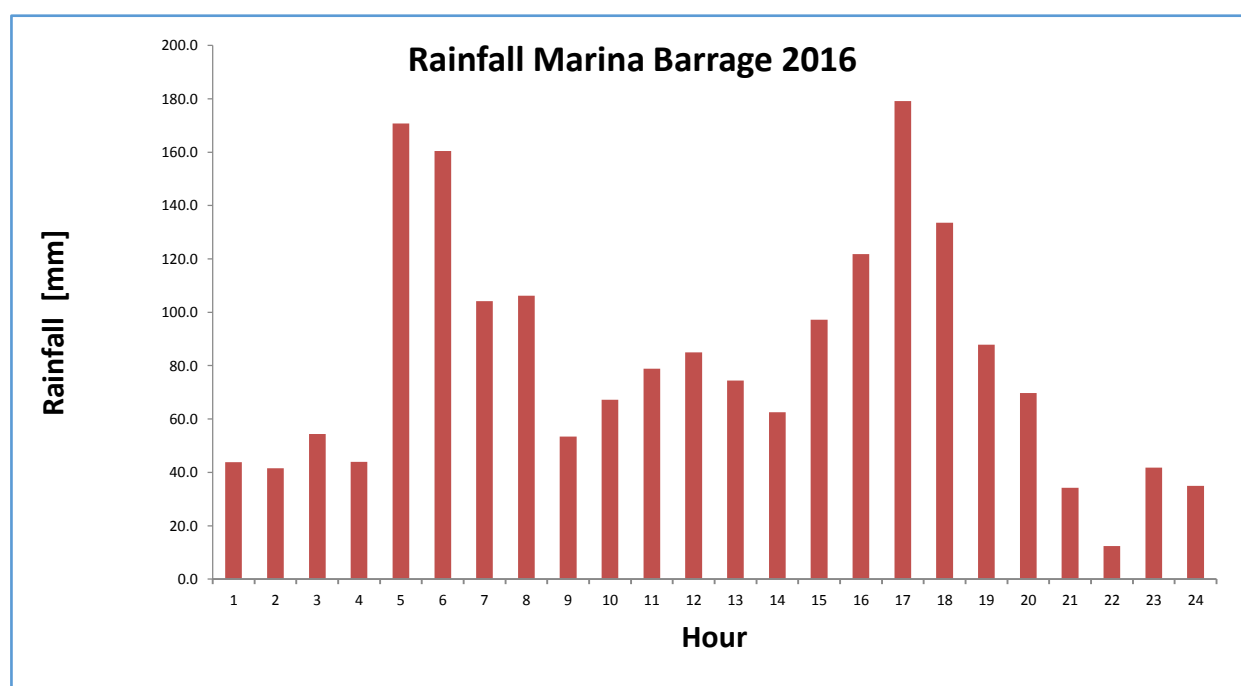
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.7	24.1	24.2	24.3	22.1	22.1	22.9	22.9	23.2	23.9	24.4	24.0
Max Dry Bulb Temperature (°C)	30.3	30.4	30.3	30.2	29.8	29.8	29.8	30.7	32.7	33.2	33.6	34.4
Average Dry Bulb Temperature (°C)	28.0	27.8	27.7	27.6	27.5	27.3	27.2	27.6	28.6	29.5	30.2	30.7
Average Dew Point Temperature (°C)	24.7	24.7	24.7	24.7	24.6	24.6	24.5	24.6	24.5	24.4	24.2	24.1
Average Relative Humidity (%)	82.2	83.0	83.8	84.4	84.8	85.3	85.6	84.1	79.2	74.5	71.0	68.5
Average Wind Speed (m/s)	3.3	3.4	3.5	3.5	3.5	3.5	3.4	2.8	2.4	2.4	2.4	2.4
Max Gust (m/s)	16.2	16.2	16.4	15.1	16.0	17.3	17.5	14.8	12.4	12.5	15.1	20.5
Rainfall (mm)	43.8	41.6	54.4	44.0	170.8	160.4	104.2	106.2	53.4	67.2	78.8	85.0



- No Data
- Defective Data

S108 Marina Barrage 2016

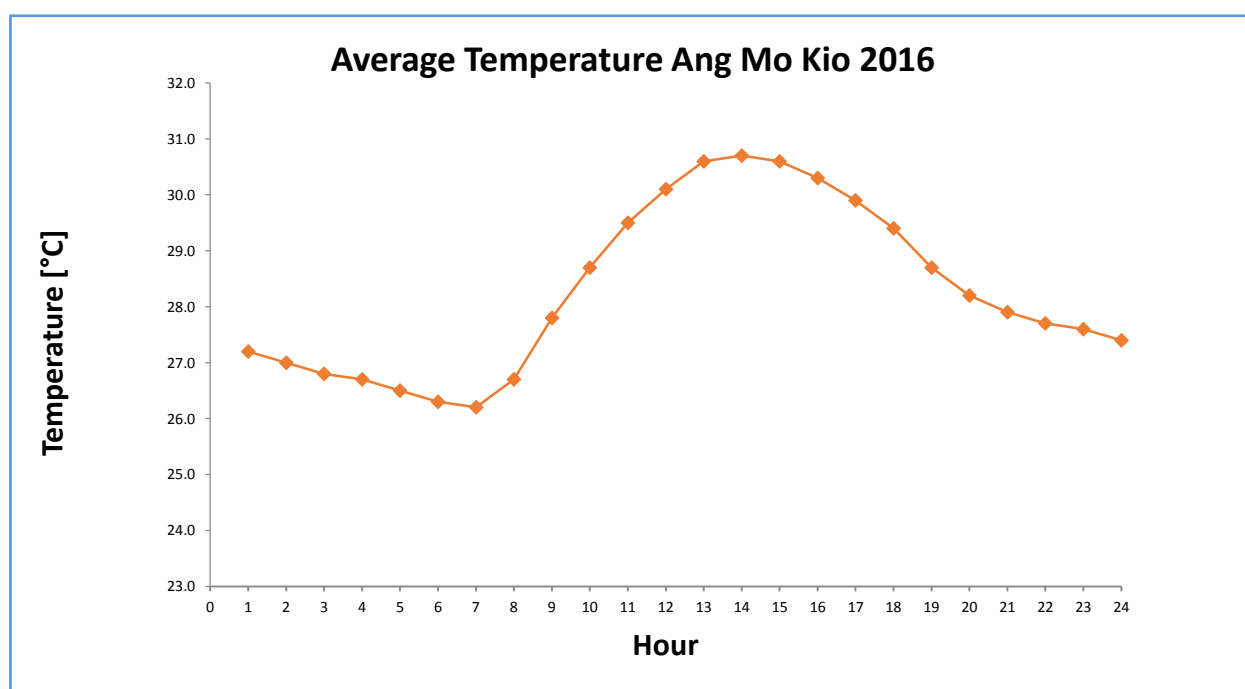
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.9	23.6	23.9	24.4	23.3	22.7	22.7	23.6	23.5	23.6	23.6	23.6
Max Dry Bulb Temperature (°C)	35.1	36.0	35.8	35.9	34.9	34.2	33.5	32.0	31.2	31.0	30.6	30.6
Average Dry Bulb Temperature (°C)	31.0	31.1	31.0	30.8	30.3	29.9	29.3	28.8	28.6	28.4	28.3	28.2
Average Dew Point Temperature (°C)	24.0	23.9	23.8	23.8	23.7	23.7	23.8	24.0	24.3	24.4	24.5	24.6
Average Relative Humidity (%)	66.8	65.9	66.4	67.3	68.6	70.3	73.1	75.8	77.8	79.1	80.1	81.1
Average Wind Speed (m/s)	2.4	2.5	2.5	2.6	2.6	2.7	3.1	3.2	3.3	3.3	3.3	3.3
Max Gust (m/s)	12.6	13.9	14.2	20.4	15.4	13.8	14.0	14.3	13.2	14.2	13.4	12.6
Rainfall (mm)	74.4	62.6	97.2	121.8	179.2	133.6	87.8	69.8	34.2	12.4	41.8	35.0



- No Data
- Defective Data

S109 Ang Mo Kio 2016

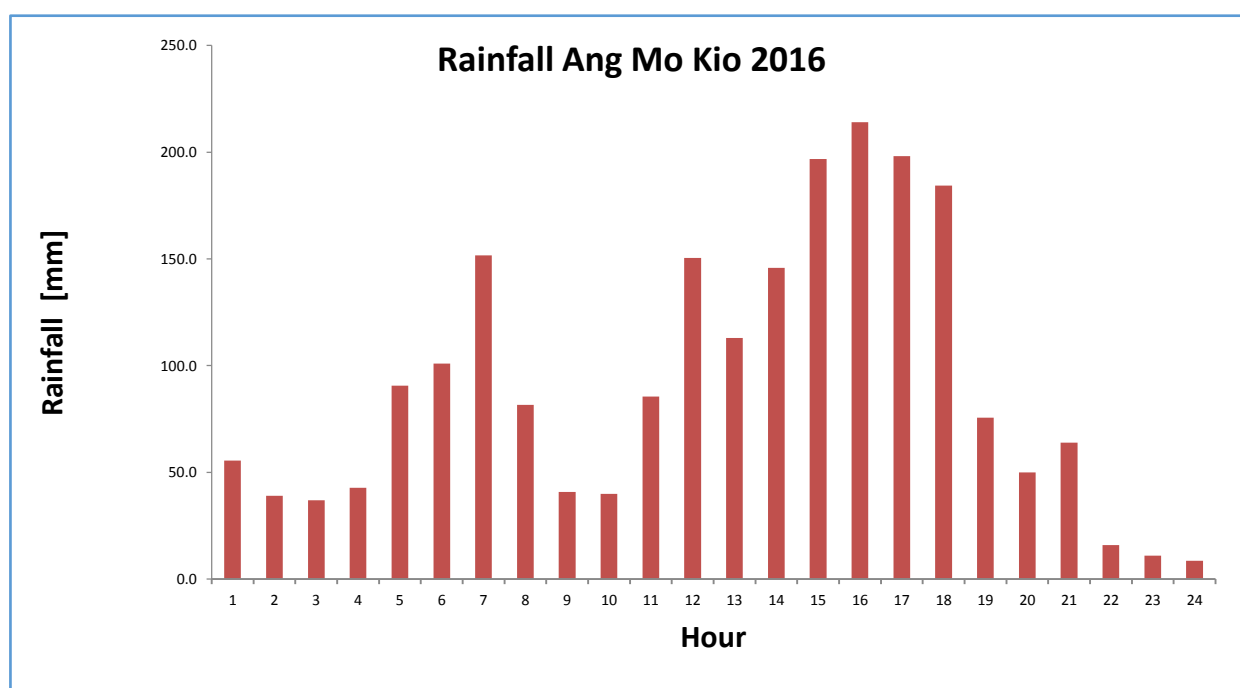
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	22.9	22.9	23.3	23.8	22.8	22.3	22.4	22.8	22.8	23.3	21.2	22.0
Max Dry Bulb Temperature (°C)	29.8	29.6	29.4	29.4	29.3	29.1	29.3	29.5	31.8	32.3	33.0	33.8
Average Dry Bulb Temperature (°C)	27.2	27.0	26.8	26.7	26.5	26.3	26.2	26.7	27.8	28.7	29.5	30.1
Average Dew Point Temperature (°C)	24.1	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.0	23.6	23.1	22.7
Average Relative Humidity (%)	83.7	85.0	86.0	86.8	87.7	88.2	89.0	86.4	80.3	74.4	69.5	65.8
Average Wind Speed (m/s)	1.2	1.2	1.2	1.1	1.2	1.2	1.1	1.2	1.5	1.8	2.0	2.1
Max Gust (m/s)	11.6	12.5	11.0	14.8	17.4	17.9	16.0	11.4	9.9	18.2	14.3	19.0
Rainfall (mm)	55.6	39.0	37.0	42.8	90.6	101.0	151.6	81.6	40.8	40.0	85.6	150.4



■ No Data
— Defective Data

S109 Ang Mo Kio 2016

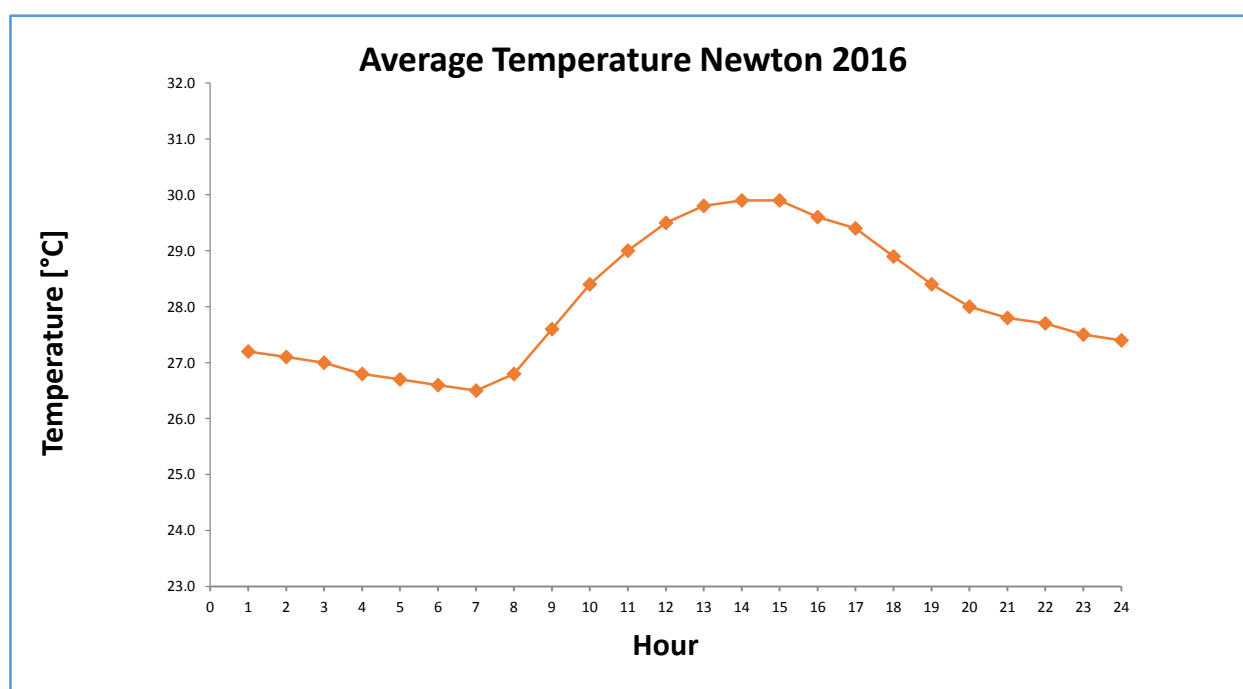
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	22.2	22.9	23.0	23.4	23.4	21.5	21.7	22.7	23.2	23.3	23.8	24.3
Max Dry Bulb Temperature (°C)	34.5	35.4	35.8	35.5	35.1	34.2	33.9	32.9	32.3	32.1	31.1	30.1
Average Dry Bulb Temperature (°C)	30.6	30.7	30.6	30.3	29.9	29.4	28.7	28.2	27.9	27.7	27.6	27.4
Average Dew Point Temperature (°C)	22.4	22.3	22.4	22.5	22.5	22.7	22.9	23.3	23.6	23.8	23.9	24.0
Average Relative Humidity (%)	63.0	62.3	63.0	64.5	65.9	68.6	71.9	75.4	77.8	79.5	80.9	82.2
Average Wind Speed (m/s)	2.2	2.3	2.4	2.4	2.2	2.0	1.8	1.6	1.5	1.3	1.3	1.2
Max Gust (m/s)	13.2	14.4	12.1	13.3	12.9	18.6	11.8	10.2	14.0	11.6	10.3	9.2
Rainfall (mm)	113.0	145.8	196.8	214.0	198.2	184.4	75.6	50.0	64.0	16.0	11.0	8.6



■ No Data
— Defective Data

S111 Newton 2016

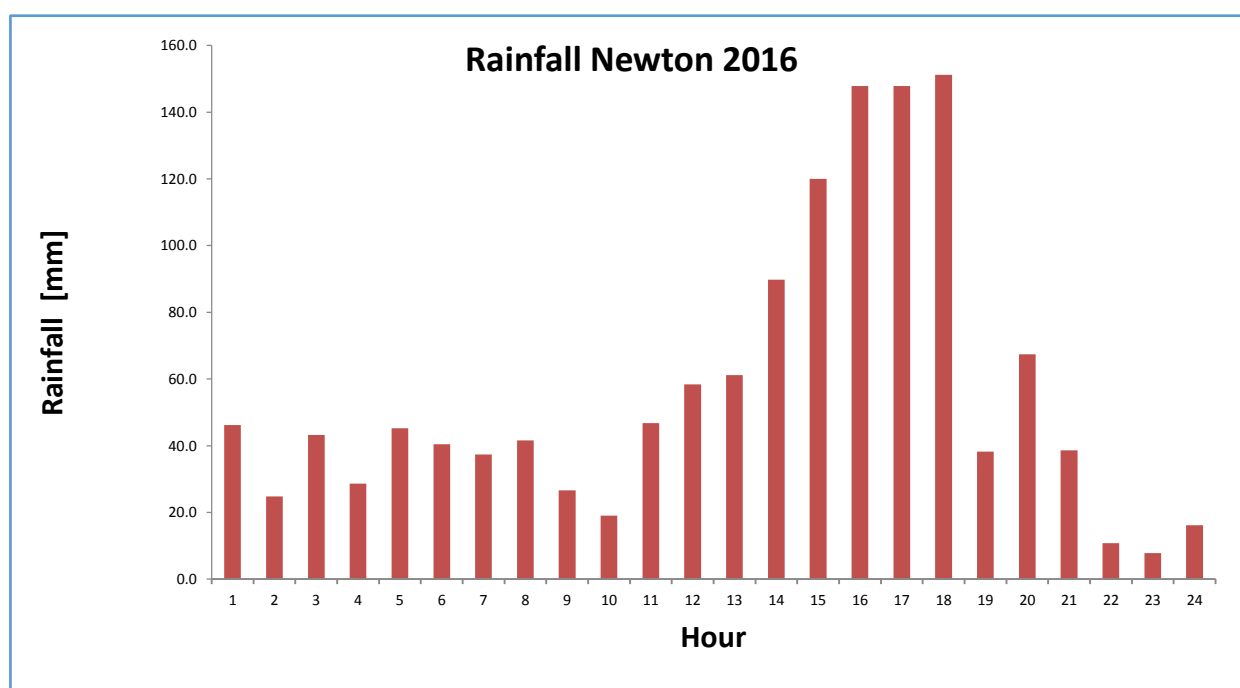
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.7	23.3	23.5	22.7	22.6	22.3	21.6	22.6	23.1	23.3	22.2	22.2
Max Dry Bulb Temperature (°C)	29.3	29.1	29.0	29.0	28.9	28.9	28.9	29.2	31.1	32.3	33.5	33.4
Average Dry Bulb Temperature (°C)	27.2	27.1	27.0	26.8	26.7	26.6	26.5	26.8	27.6	28.4	29.0	29.5
Average Dew Point Temperature (°C)	24.4	24.5	24.5	24.6	24.6	24.7	24.7	24.6	24.4	23.8	23.3	22.9
Average Relative Humidity (%)	83.8	85.1	86.1	87.0	87.9	88.3	89.0	86.5	82.1	75.8	70.6	67.2
Average Wind Speed (m/s)	1.7	1.6	1.6	1.5	1.6	1.6	1.5	1.6	1.7	1.9	2.1	2.2
Max Gust (m/s)	15.1	13.5	11.3	11.2	11.2	14.3	13.0	11.6	10.7	12.0	13.5	15.1
Rainfall (mm)	46.2	24.8	43.2	28.6	45.2	40.4	37.4	41.6	26.6	19.0	46.8	58.4



- No Data
- Defective Data

S111 Newton 2016

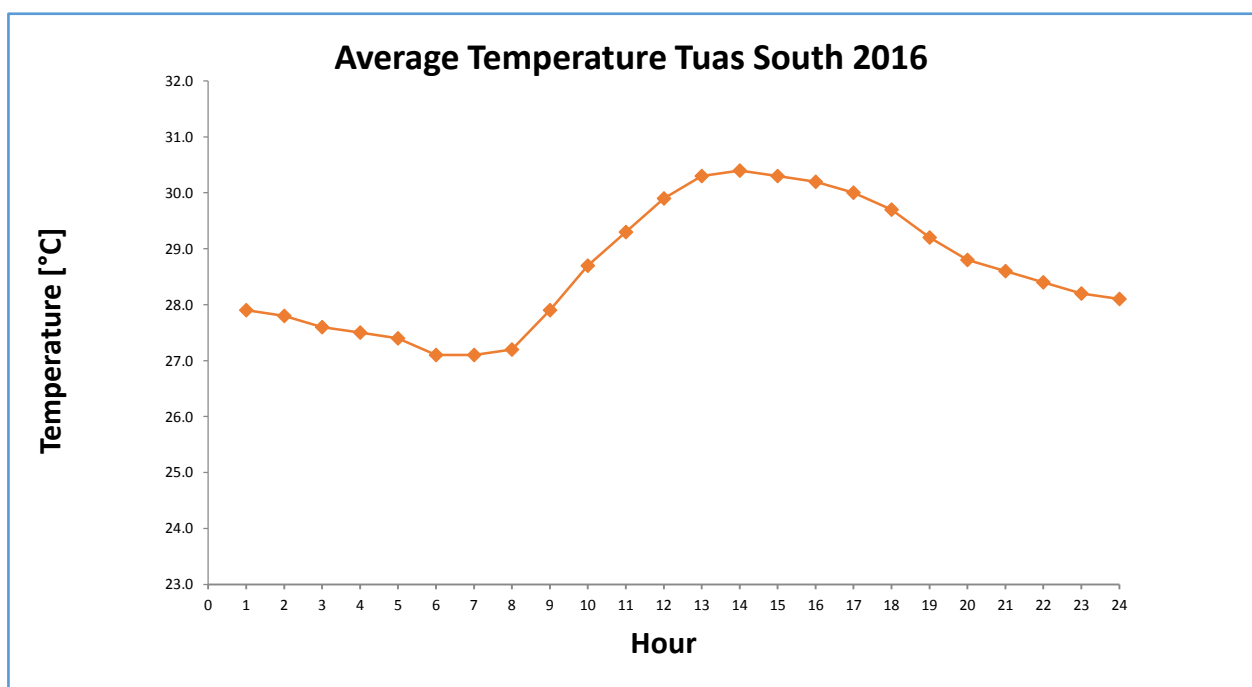
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.3	22.8	22.9	23.9	22.5	22.4	23.1	23.7	23.2	23.4	23.7	23.8
Max Dry Bulb Temperature (°C)	33.9	33.9	34.4	34.5	33.9	33.5	32.8	31.7	31.3	31.1	30.4	29.9
Average Dry Bulb Temperature (°C)	29.8	29.9	29.9	29.6	29.4	28.9	28.4	28.0	27.8	27.7	27.5	27.4
Average Dew Point Temperature (°C)	22.8	22.8	22.7	22.7	22.7	22.8	23.1	23.3	23.6	23.9	24.1	24.2
Average Relative Humidity (%)	65.7	65.4	65.0	66.1	67.0	69.1	72.5	75.4	77.9	79.7	81.2	82.4
Average Wind Speed (m/s)	2.4	2.4	2.4	2.5	2.4	2.2	2.1	1.9	1.8	1.8	1.7	1.7
Max Gust (m/s)	13.4	14.1	13.3	13.0	13.1	12.9	13.7	12.3	11.8	10.5	13.4	10.6
Rainfall (mm)	61.2	89.8	120.0	147.8	147.8	151.2	38.2	67.4	38.6	10.8	7.8	16.2



- No Data
- Defective Data

S115 Tuas South 2016

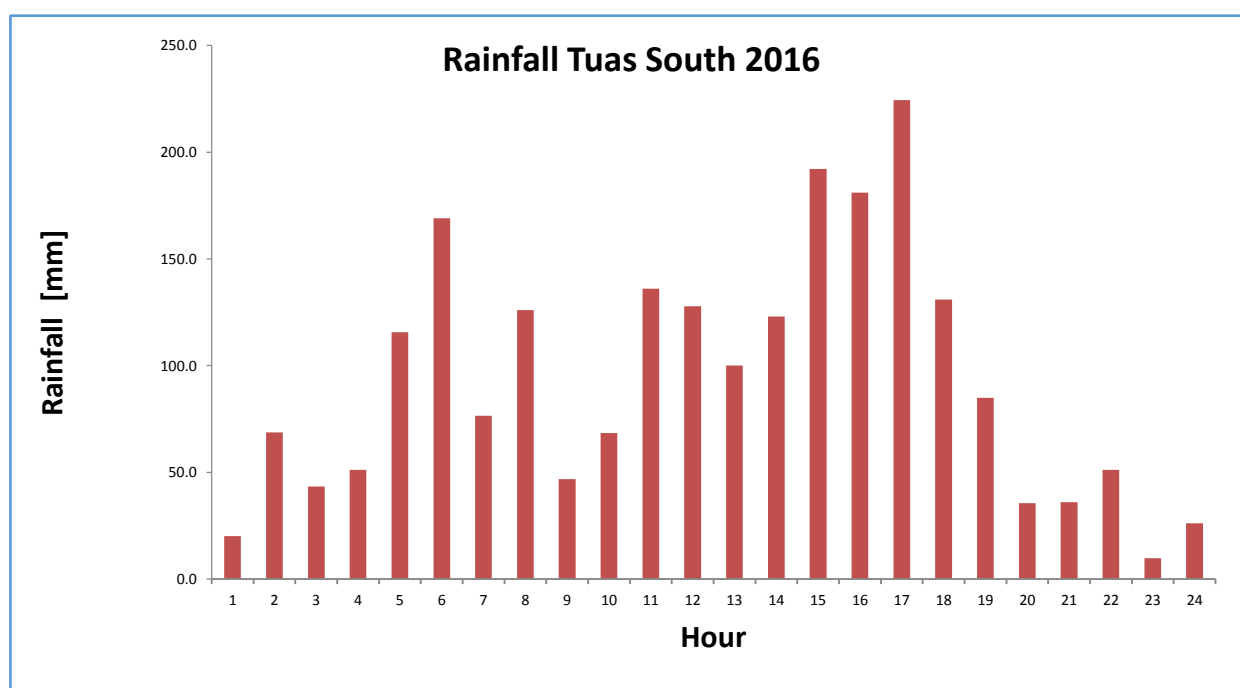
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.8	23.7	23.8	24.6	23.5	23.8	23.7	23.0	23.6	23.7	23.7	23.6
Max Dry Bulb Temperature (°C)	30.6	30.4	30.2	30.2	30.4	30.2	29.9	29.9	31.0	32.9	33.7	33.9
Average Dry Bulb Temperature (°C)	27.9	27.8	27.6	27.5	27.4	27.1	27.1	27.2	27.9	28.7	29.3	29.9
Average Dew Point Temperature (°C)	24.2	24.2	24.2	24.2	24.2	24.1	24.1	24.2	24.4	24.3	24.2	24.1
Average Relative Humidity (%)	80.3	81.2	81.8	82.2	83.0	83.6	84.0	83.7	81.4	77.7	74.3	71.6
Average Wind Speed (m/s)	1.2	1.3	1.3	1.4	1.5	1.6	1.5	1.6	1.8	1.9	2.2	2.5
Max Gust (m/s)	16.9	15.0	15.4	17.9	17.8	20.2	16.4	14.6	10.7	15.7	14.5	13.3
Rainfall (mm)	20.2	68.8	43.4	51.2	115.6	169.0	76.6	126.0	46.8	68.4	136.0	127.8



- No Data
- Defective Data

S115 Tuas South 2016

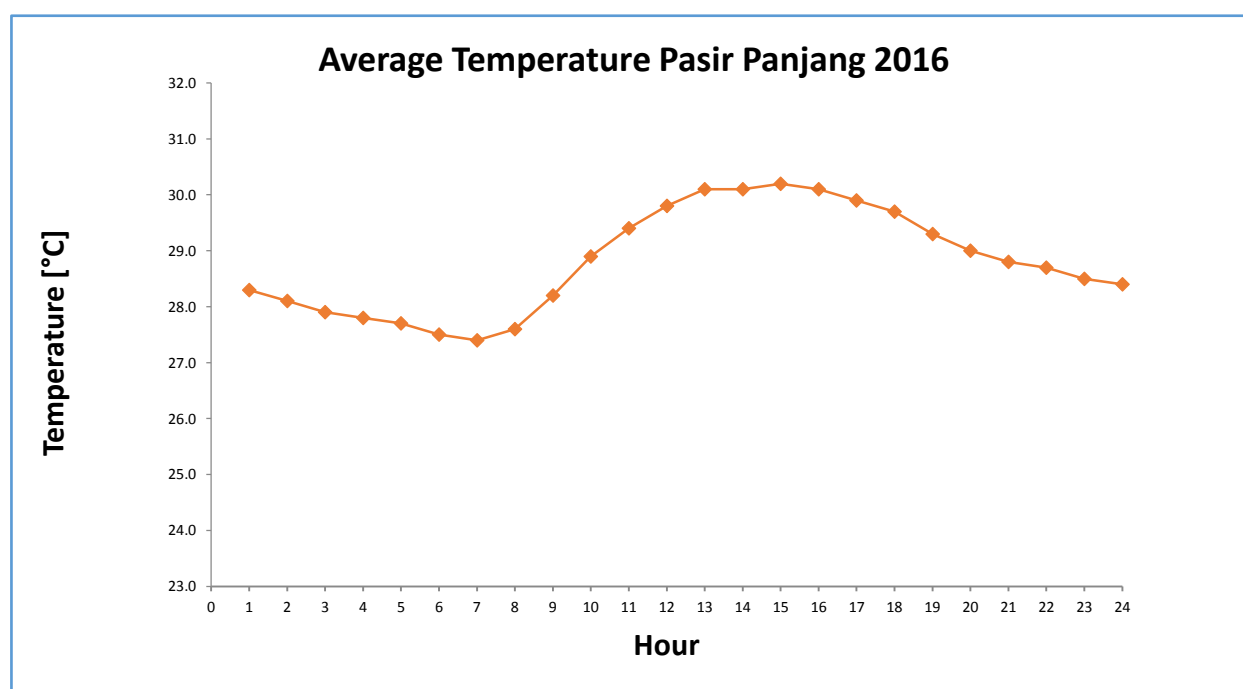
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.7	23.9	24.2	23.4	24.0	23.7	23.3	23.0	23.7	24.0	24.0	24.3
Max Dry Bulb Temperature (°C)	34.9	34.2	35.1	34.8	35.6	35.0	34.2	32.9	31.8	31.4	31.1	30.7
Average Dry Bulb Temperature (°C)	30.3	30.4	30.3	30.2	30.0	29.7	29.2	28.8	28.6	28.4	28.2	28.1
Average Dew Point Temperature (°C)	24.0	24.0	23.9	23.9	23.8	23.8	23.8	23.8	23.9	23.9	24.0	24.1
Average Relative Humidity (%)	69.8	69.2	69.2	69.6	70.0	71.0	73.0	74.9	76.0	76.9	78.2	79.3
Average Wind Speed (m/s)	2.7	2.8	2.7	2.5	2.2	1.8	1.5	1.3	1.2	1.2	1.2	1.1
Max Gust (m/s)	12.4	12.1	12.9	12.1	11.0	12.5	17.7	11.8	15.9	15.1	11.4	14.1
Rainfall (mm)	100.0	123.0	192.2	181.0	224.4	131.0	85.0	35.6	36.0	51.2	9.8	26.2



- No Data
- Defective Data

S116 Pasir Panjang 2016

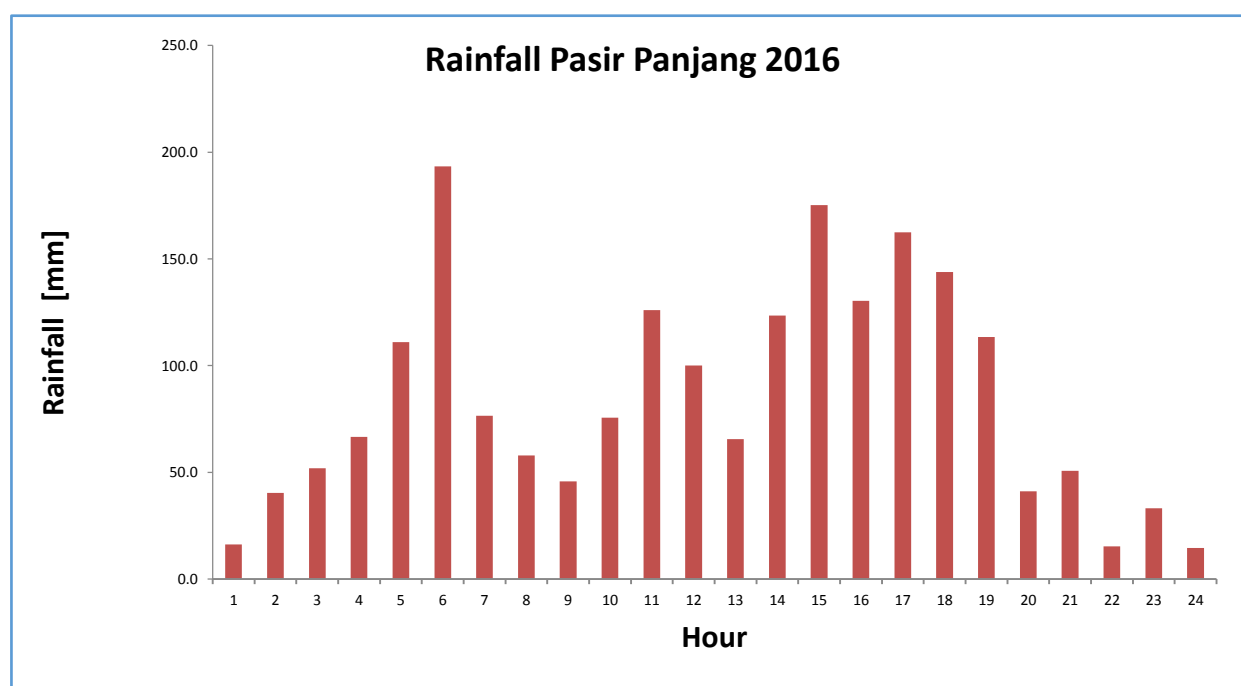
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.1	24.3	23.8	23.5	21.8	21.9	22.6	23.1	23.6	23.8	22.3	22.8
Max Dry Bulb Temperature (°C)	30.5	30.5	30.5	30.4	30.3	30.2	29.8	30.4	31.0	32.1	33.1	33.6
Average Dry Bulb Temperature (°C)	28.3	28.1	27.9	27.8	27.7	27.5	27.4	27.6	28.2	28.9	29.4	29.8
Average Dew Point Temperature (°C)	25.9	25.9	25.8	25.9	25.8	25.7	25.7	25.7	25.7	25.6	25.3	25.2
Average Relative Humidity (%)	87.0	87.9	88.6	89.3	89.8	90.2	90.4	89.7	86.4	82.6	79.2	76.8
Average Wind Speed (m/s)	2.3	2.4	2.4	2.5	2.6	2.6	2.6	2.5	2.8	3.1	3.3	3.4
Max Gust (m/s)	23.0	21.4	19.4	23.0	21.5	23.9	23.5	18.5	15.4	16.9	20.8	15.6
Rainfall (mm)	16.2	40.4	52.0	66.6	111.0	193.4	76.6	58.0	45.8	75.6	126.0	100.0



- No Data
- Defective Data

S116 Pasir Panjang 2016

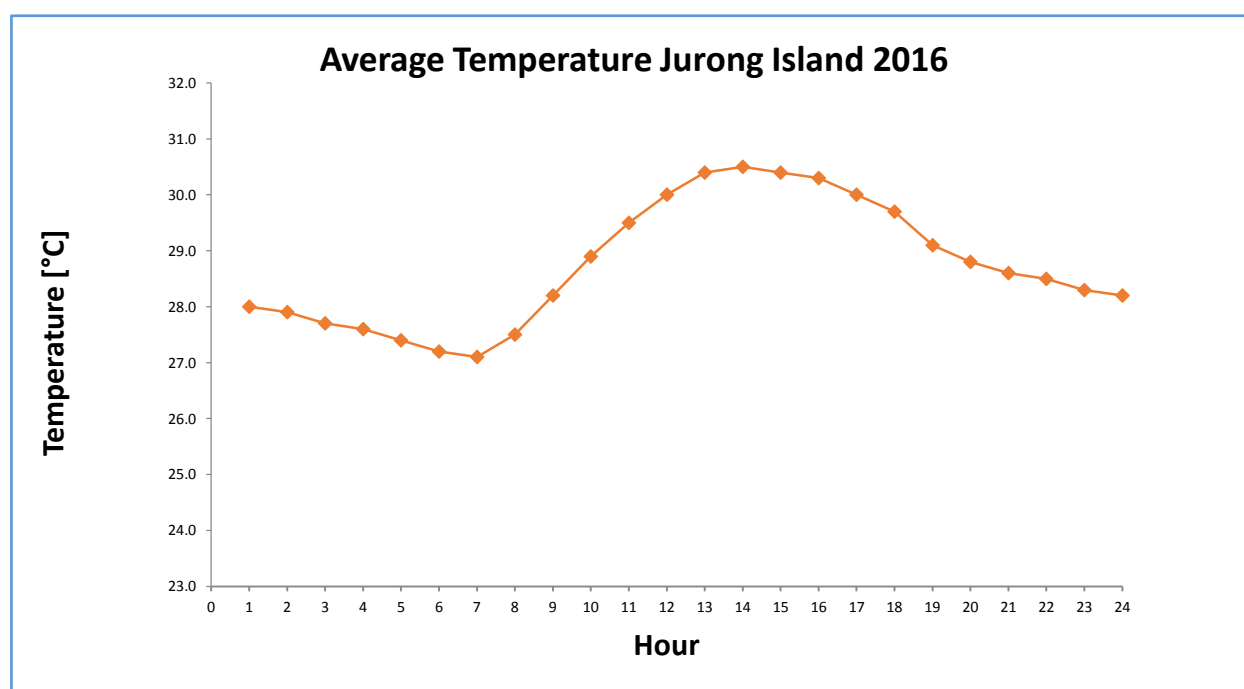
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	24.4	24.1	23.5	23.2	22.7	23.1	23.3	23.3	23.3	23.9	24.4	24.7
Max Dry Bulb Temperature (°C)	34.5	34.4	34.8	35.0	35.3	34.3	33.7	32.5	32.0	31.8	31.3	31.0
Average Dry Bulb Temperature (°C)	30.1	30.1	30.2	30.1	29.9	29.7	29.3	29.0	28.8	28.7	28.5	28.4
Average Dew Point Temperature (°C)	25.1	25.0	24.9	24.9	24.8	24.8	25.0	25.3	25.4	25.6	25.7	25.8
Average Relative Humidity (%)	75.2	74.6	74.3	74.6	75.3	75.9	78.3	80.6	82.3	83.7	85.1	86.1
Average Wind Speed (m/s)	3.6	3.8	3.8	3.6	3.4	3.1	2.9	2.6	2.5	2.5	2.3	2.3
Max Gust (m/s)	15.9	17.8	15.6	16.4	16.5	19.8	17.4	15.6	13.9	17.1	19.4	23.5
Rainfall (mm)	65.6	123.4	175.2	130.4	162.4	143.8	113.4	41.2	50.8	15.4	33.2	14.6



- No Data
- Defective Data

S117 Jurong Island 2016

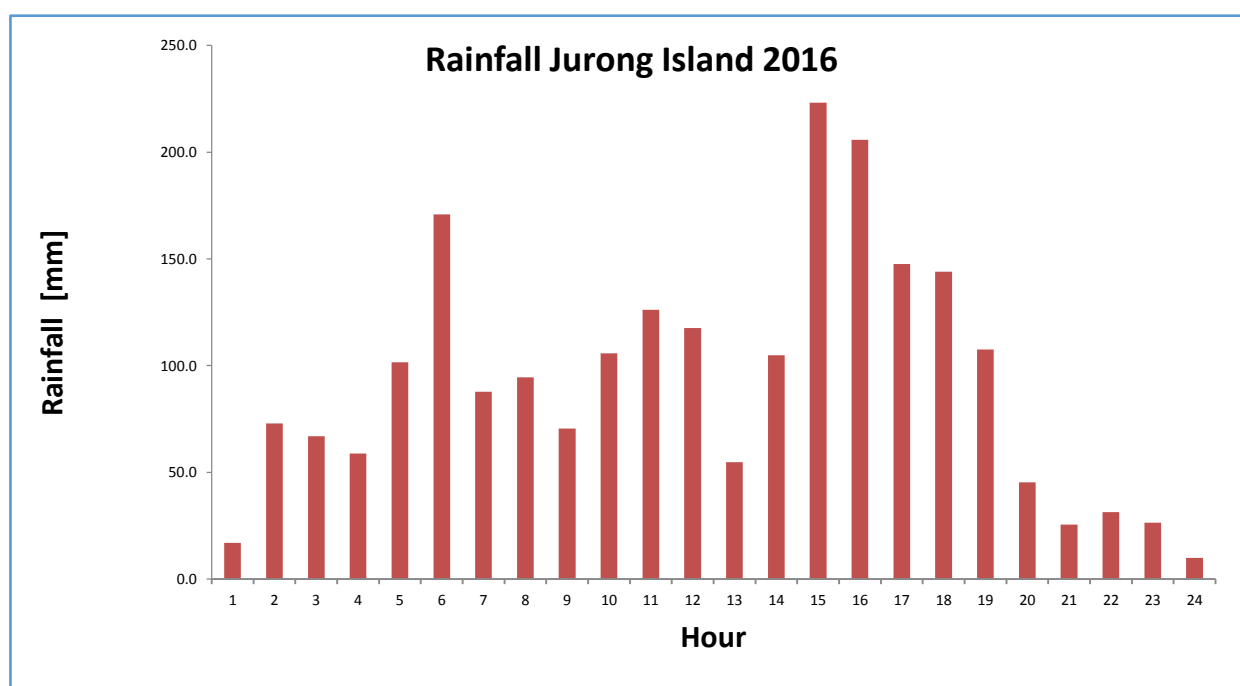
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	24.1	23.5	23.3	23.6	22.8	22.5	22.7	22.7	23.6	22.5	21.9	22.7
Max Dry Bulb Temperature (°C)	30.1	30.1	30.0	29.9	29.9	29.7	29.6	30.3	31.0	31.7	32.7	33.4
Average Dry Bulb Temperature (°C)	28.0	27.9	27.7	27.6	27.4	27.2	27.1	27.5	28.2	28.9	29.5	30.0
Average Dew Point Temperature (°C)	24.0	24.0	24.0	24.1	24.0	24.0	23.9	24.1	23.9	23.6	23.4	23.2
Average Relative Humidity (%)	78.9	80.0	80.8	81.4	82.0	82.8	82.9	82.2	77.7	73.5	70.4	67.5
Average Wind Speed (m/s)	1.7	1.7	1.8	1.7	1.8	1.7	1.7	1.7	2.0	2.2	2.4	2.6
Max Gust (m/s)	15.6	13.8	14.1	15.6	15.2	15.9	15.1	14.3	11.7	12.1	13.5	16.0
Rainfall (mm)	17.0	73.0	67.0	58.8	101.6	170.8	87.8	94.6	70.6	105.8	126.2	117.6



- No Data
- Defective Data

S117 Jurong Island 2016

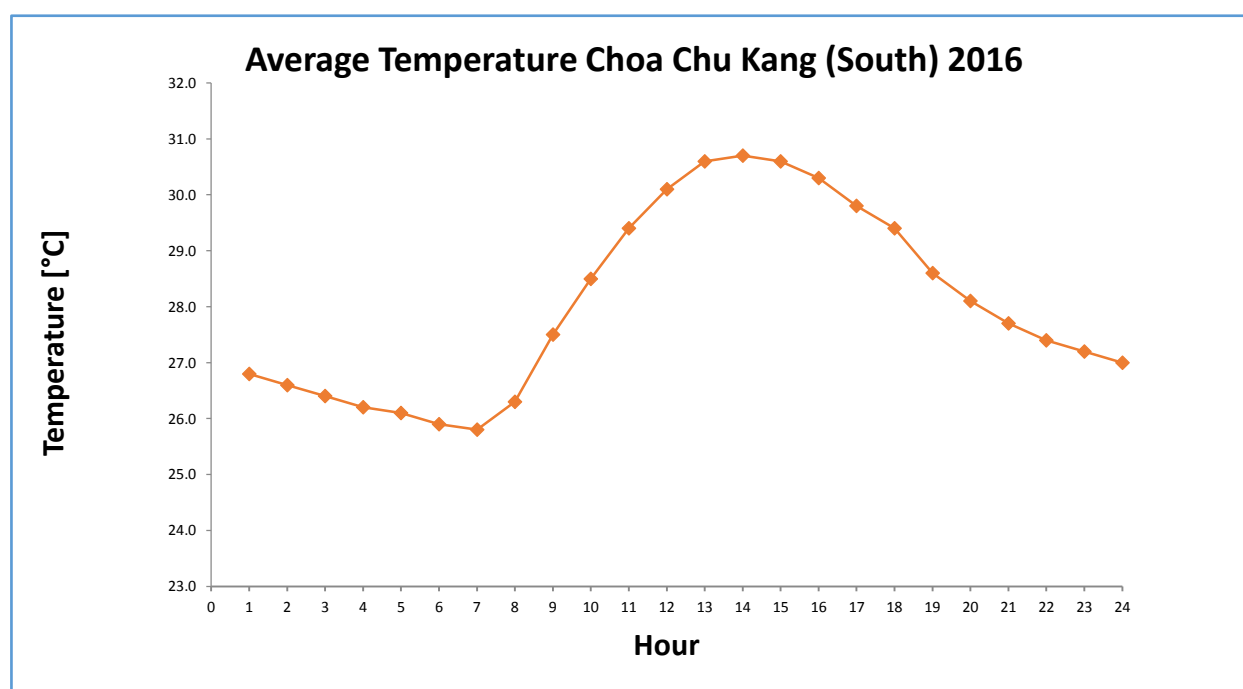
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.3	23.0	23.8	23.9	22.8	23.3	23.0	22.5	23.8	24.0	23.7	24.4
Max Dry Bulb Temperature (°C)	34.4	35.6	34.4	34.8	35.4	34.9	34.3	32.8	31.6	31.5	30.8	30.6
Average Dry Bulb Temperature (°C)	30.4	30.5	30.4	30.3	30.0	29.7	29.1	28.8	28.6	28.5	28.3	28.2
Average Dew Point Temperature (°C)	23.1	23.0	23.0	23.0	23.0	23.0	23.1	23.3	23.5	23.7	23.8	23.9
Average Relative Humidity (%)	66.2	65.2	66.0	66.2	67.0	68.4	70.7	72.6	74.0	75.4	76.8	78.0
Average Wind Speed (m/s)	2.8	2.9	2.9	2.7	2.5	2.3	2.0	1.9	1.9	1.8	1.8	1.8
Max Gust (m/s)	13.1	14.3	16.9	12.8	14.0	13.9	11.2	10.3	12.5	11.4	14.9	12.2
Rainfall (mm)	54.8	104.8	223.2	205.8	147.6	144.0	107.6	45.4	25.6	31.4	26.4	10.0



■ No Data
— Defective Data

S121 Choa Chu Kang (South) 2016

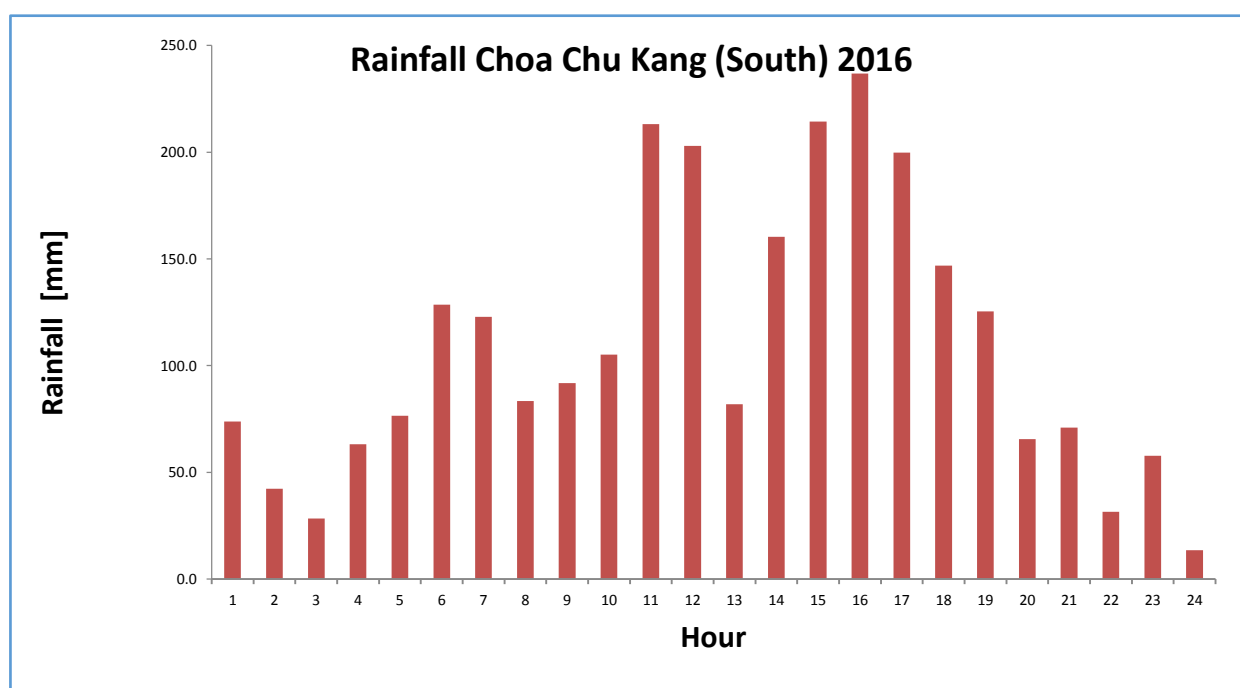
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	22.8	23.1	23.7	23.5	22.8	22.5	22.1	22.4	22.6	23.2	22.7	22.5
Max Dry Bulb Temperature (°C)	29.6	29.1	28.9	29.1	29.1	29.0	28.6	29.0	30.4	31.9	32.7	34.0
Average Dry Bulb Temperature (°C)	26.8	26.6	26.4	26.2	26.1	25.9	25.8	26.3	27.5	28.5	29.4	30.1
Average Dew Point Temperature (°C)	26.2	26.2	26.1	26.0	25.9	25.8	25.8	26.1	26.5	26.0	25.4	24.8
Average Relative Humidity (%)	95.0	96.1	96.8	97.0	97.3	97.6	97.8	96.9	92.8	85.6	79.1	73.5
Average Wind Speed (m/s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.6	2.0	2.2	2.3
Max Gust (m/s)	24.5	14.3	9.7	12.4	14.6	14.8	14.4	11.3	15.5	28.4	11.4	14.5
Rainfall (mm)	73.8	42.4	28.4	63.2	76.6	128.6	122.8	83.4	91.8	105.2	213.2	203.0



- No Data
- Defective Data

S121 Choa Chu Kang (South) 2016

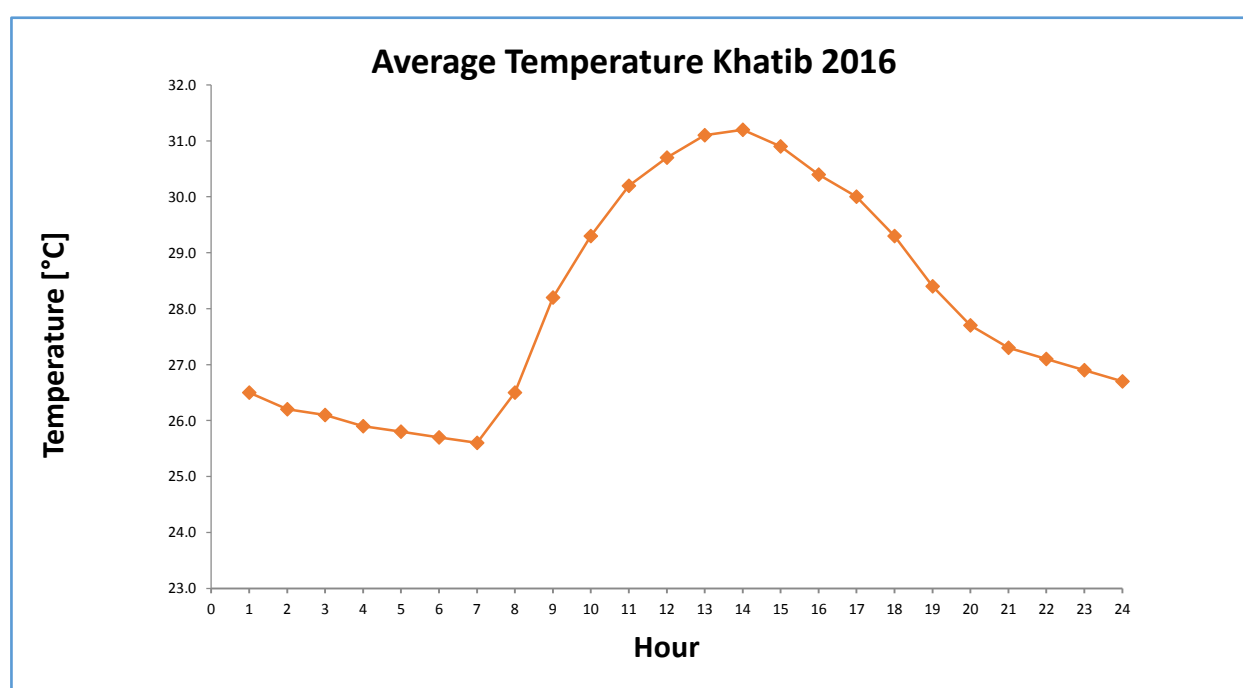
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	23.6	23.1	22.8	23.3	21.7	21.7	22.7	22.6	23.2	23.1	23.3	23.9
Max Dry Bulb Temperature (°C)	34.9	35.1	35.7	35.7	35.2	34.9	33.7	32.3	31.3	30.5	30.1	29.7
Average Dry Bulb Temperature (°C)	30.6	30.7	30.6	30.3	29.8	29.4	28.6	28.1	27.7	27.4	27.2	27.0
Average Dew Point Temperature (°C)	24.5	24.3	24.3	24.5	24.5	24.6	24.9	25.3	25.6	25.9	26.1	26.1
Average Relative Humidity (%)	70.6	69.1	68.9	71.6	73.2	75.7	80.5	84.3	87.7	90.4	92.3	93.7
Average Wind Speed (m/s)	2.3	2.4	2.4	2.3	2.2	1.9	1.7	1.4	1.3	1.2	1.1	1.1
Max Gust (m/s)	14.3	24.7	13.1	18.2	14.3	26.2	13.5	27.0	21.7	12.1	10.4	9.9
Rainfall (mm)	82.0	160.4	214.4	236.8	199.8	146.8	125.4	65.6	71.0	31.6	57.8	13.6



- No Data
- Defective Data

S122 Khatib 2016

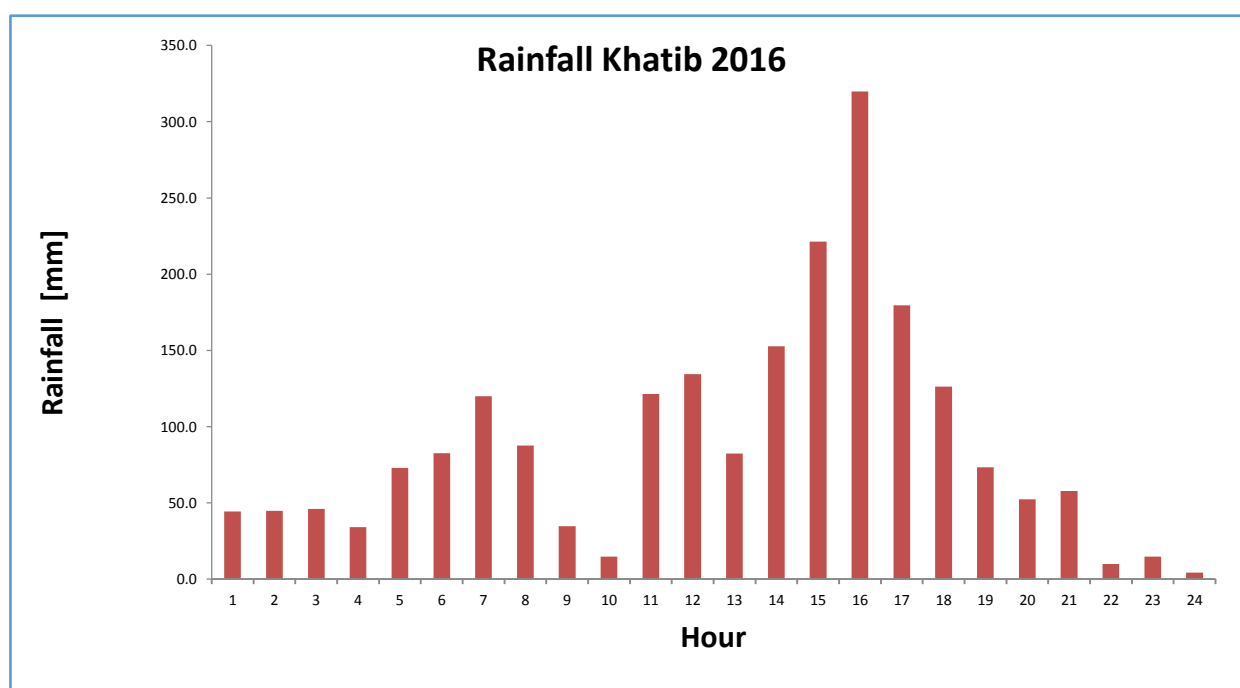
Hours	1	2	3	4	5	6	7	8	9	10	11	12
Min Dry Bulb Temperature (°C)	23.2	23.1	23.3	23.5	22.4	22.2	22.1	22.3	22.8	23.0	22.2	22.4
Max Dry Bulb Temperature (°C)	29.6	29.4	29.2	29.0	28.8	28.6	28.6	29.5	31.6	33.0	33.8	34.3
Average Dry Bulb Temperature (°C)	26.5	26.2	26.1	25.9	25.8	25.7	25.6	26.5	28.2	29.3	30.2	30.7
Average Dew Point Temperature (°C)	21.0	19.3	20.9	21.8	19.6	19.0	17.2	22.3	21.9	20.3	19.3	18.2
Average Relative Humidity (%)	66.7	65.4	67.5	66.2	66.2	66.1	62.7	67.4	62.7	54.9	50.6	46.9
Average Wind Speed (m/s)	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.2	1.6	1.7	1.8
Max Gust (m/s)	11.1	9.9	8.4	10.0	11.4	11.2	11.4	10.7	9.8	8.5	10.9	11.0
Rainfall (mm)	44.4	44.8	46.0	34.0	73.0	82.6	120.0	87.6	34.8	14.8	121.4	134.4



- No Data
- Defective Data

S122 Khatib 2016

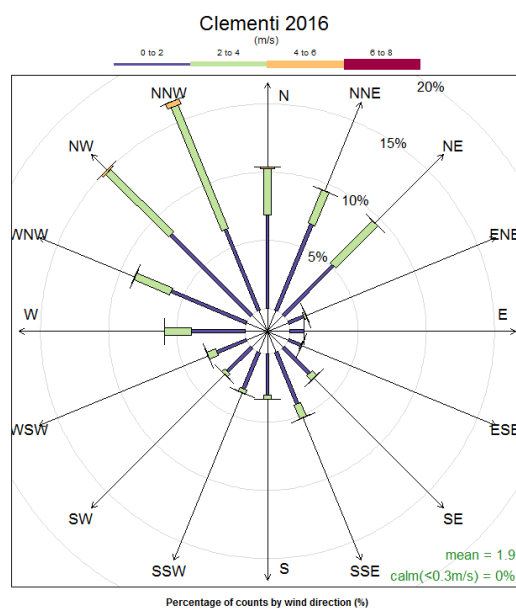
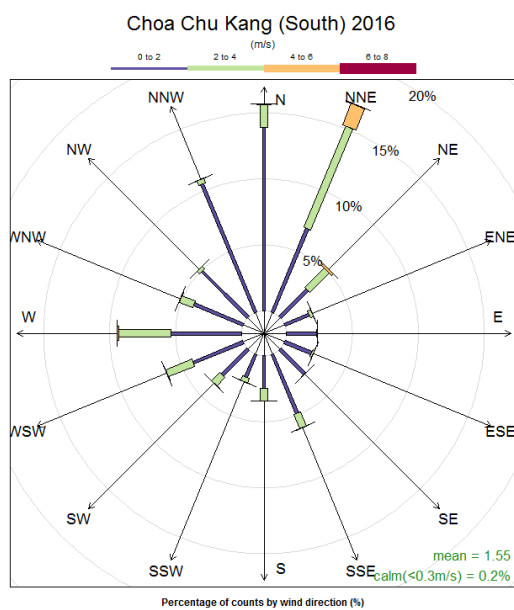
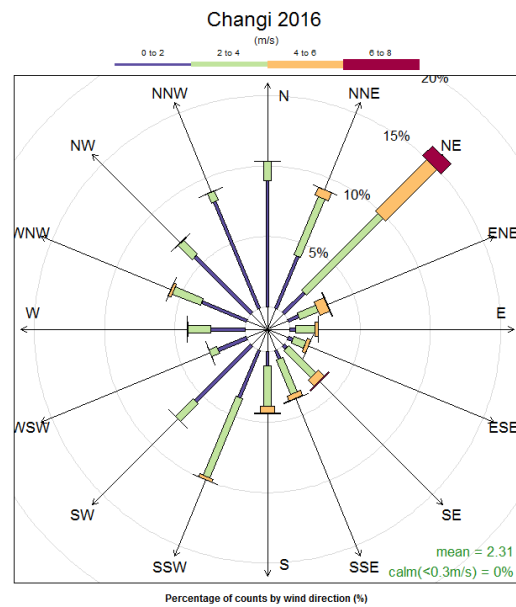
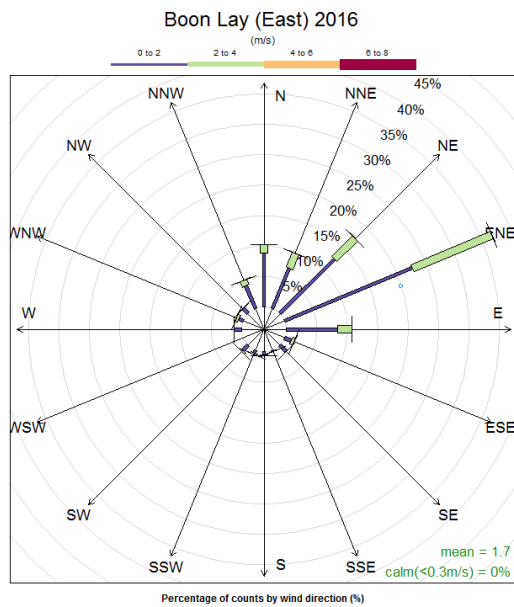
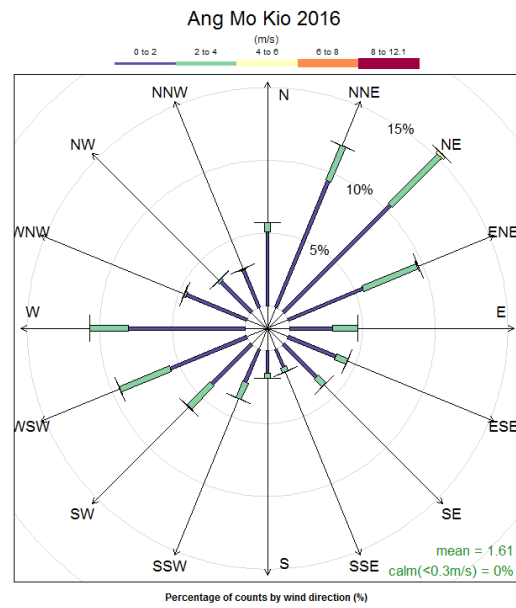
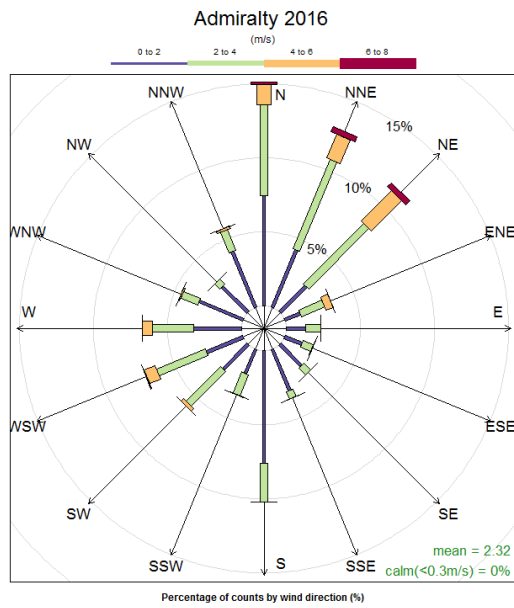
Hours	13	14	15	16	17	18	19	20	21	22	23	24
Min Dry Bulb Temperature (°C)	22.4	23.2	23.3	23.6	23.4	22.2	22.4	22.9	23.2	22.8	23.4	23.8
Max Dry Bulb Temperature (°C)	35.0	35.5	35.8	35.7	35.1	34.7	33.7	31.9	30.6	30.2	29.7	29.6
Average Dry Bulb Temperature (°C)	31.1	31.2	30.9	30.4	30.0	29.3	28.4	27.7	27.3	27.1	26.9	26.7
Average Dew Point Temperature (°C)	17.5	17.7	16.8	16.6	17.0	16.7	17.5	18.6	19.2	19.6	20.0	20.6
Average Relative Humidity (%)	44.2	44.2	43.3	44.4	47.1	48.9	53.2	57.1	60.4	62.1	63.6	65.6
Average Wind Speed (m/s)	2.0	2.0	2.0	2.0	1.8	1.6	1.3	1.2	1.1	1.0	0.9	0.9
Max Gust (m/s)	10.1	11.6	10.3	12.4	13.5	10.5	10.3	8.9	9.2	10.0	7.6	6.8
Rainfall (mm)	82.4	152.8	221.4	319.8	179.6	126.2	73.4	52.4	57.8	10.0	14.8	4.2

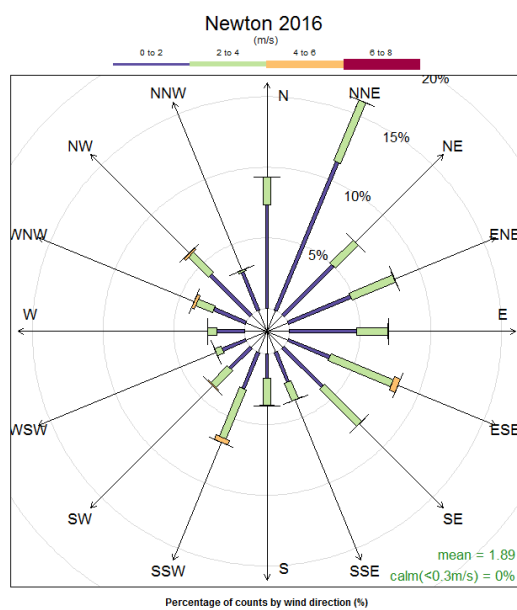
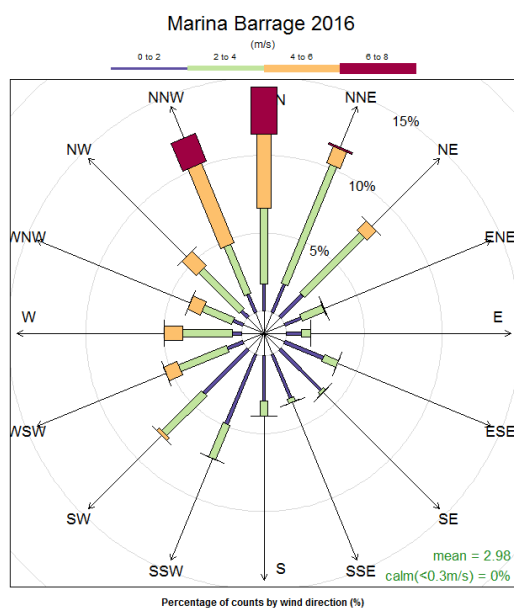
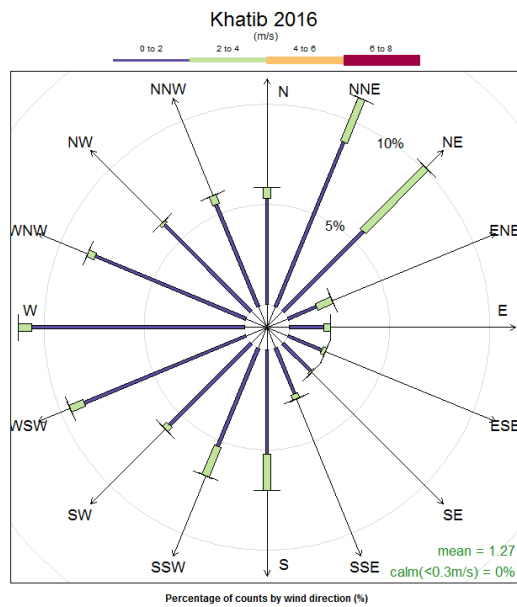
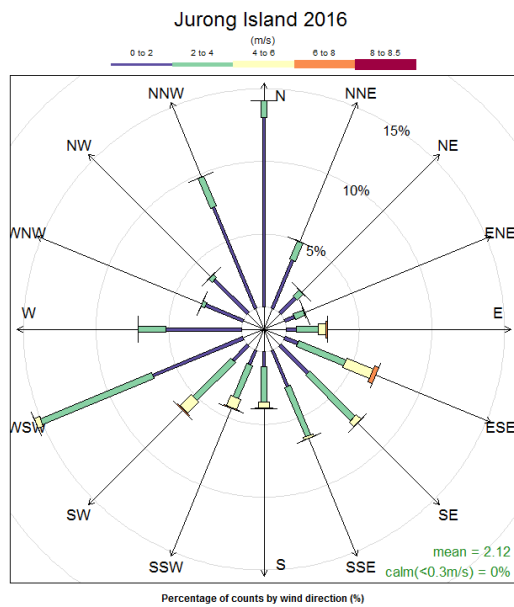
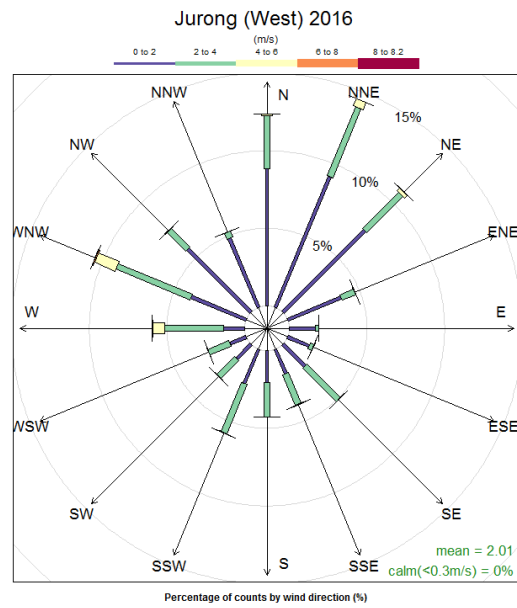
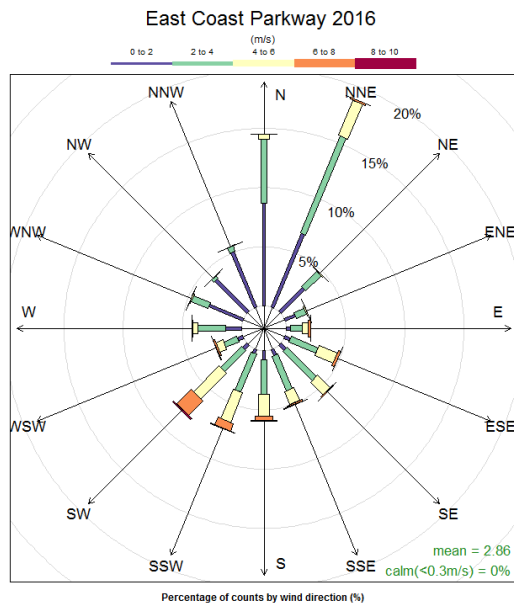


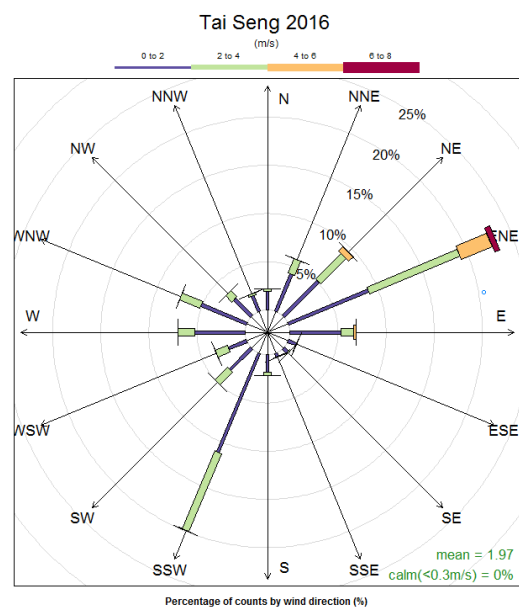
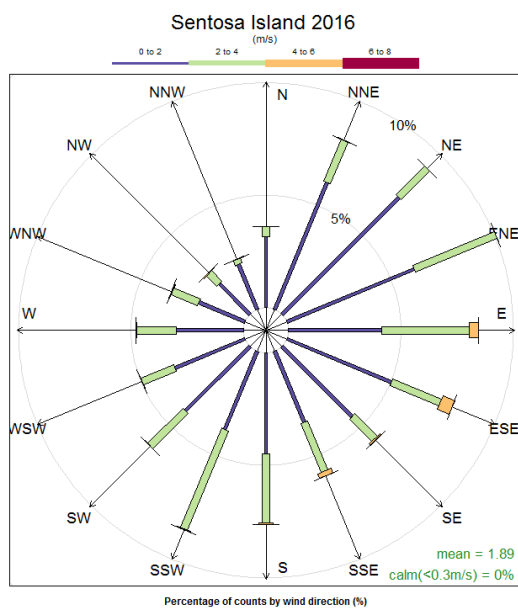
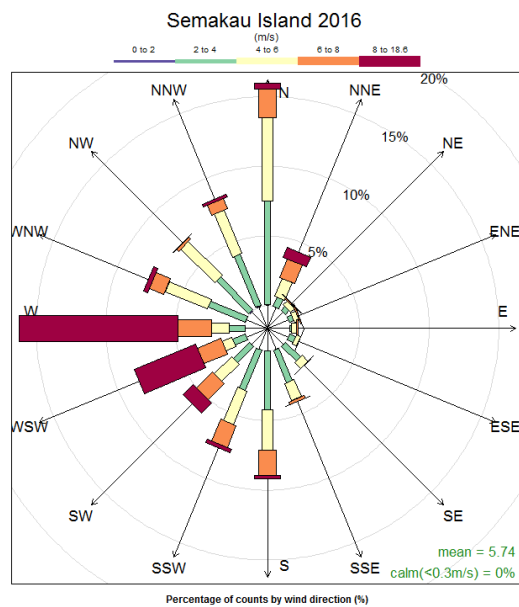
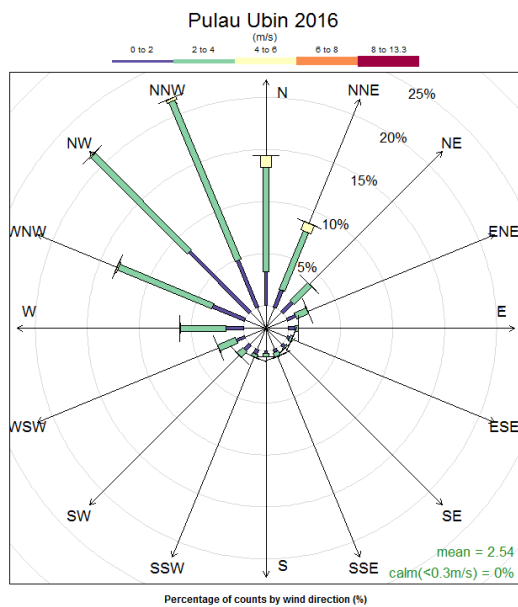
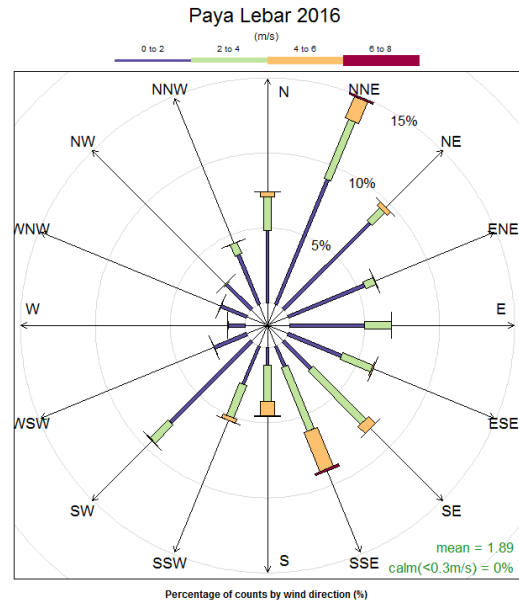
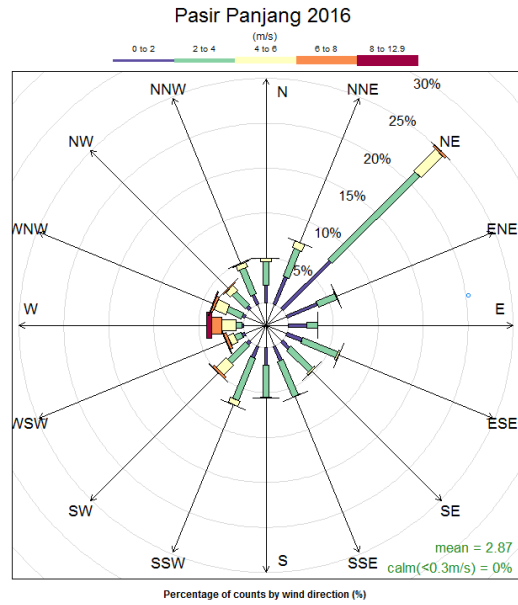
- No Data
- Defective Data

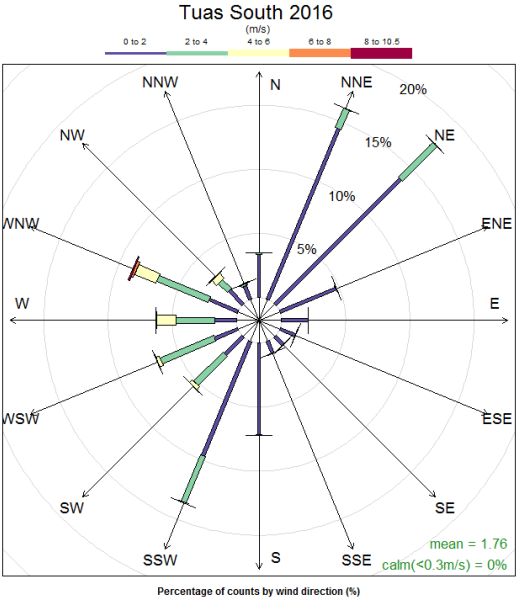
11. Wind Rose

11.1. Annual Wind Rose of All Stations

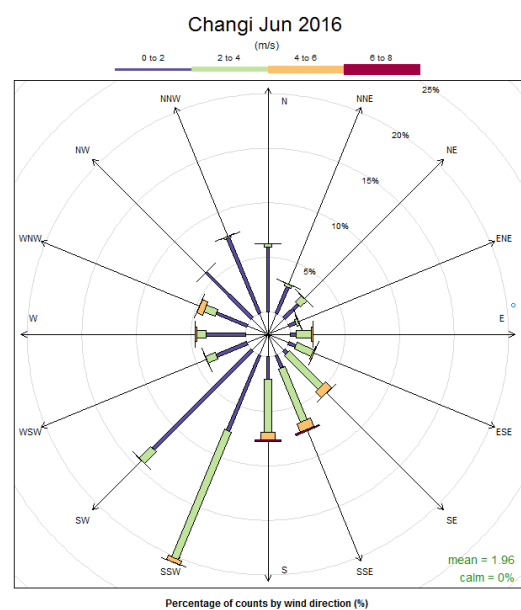
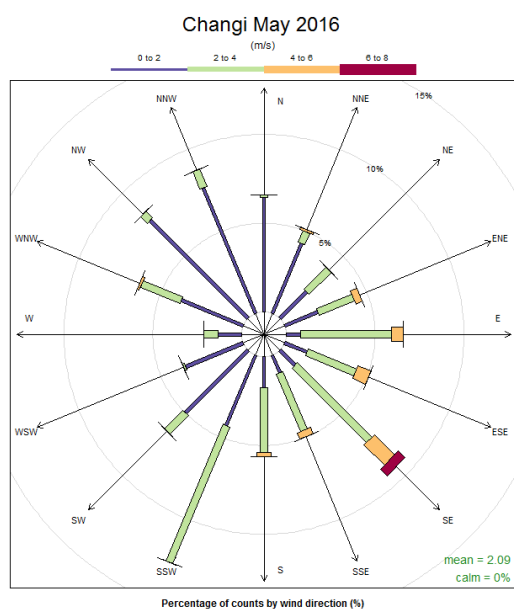
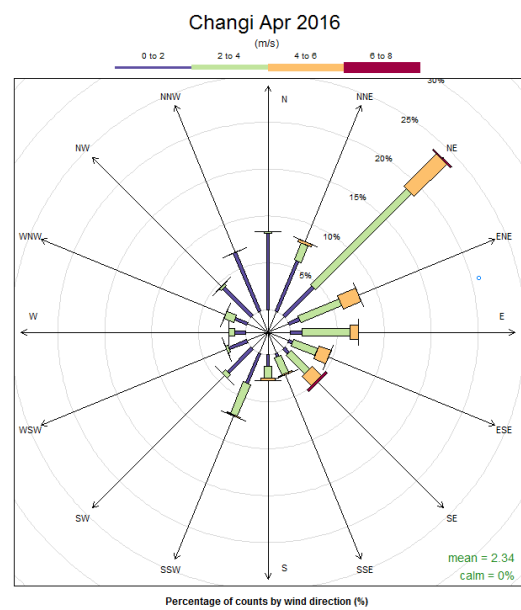
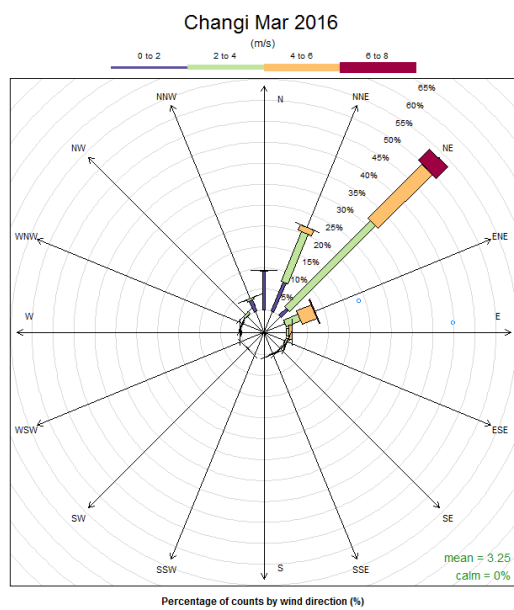
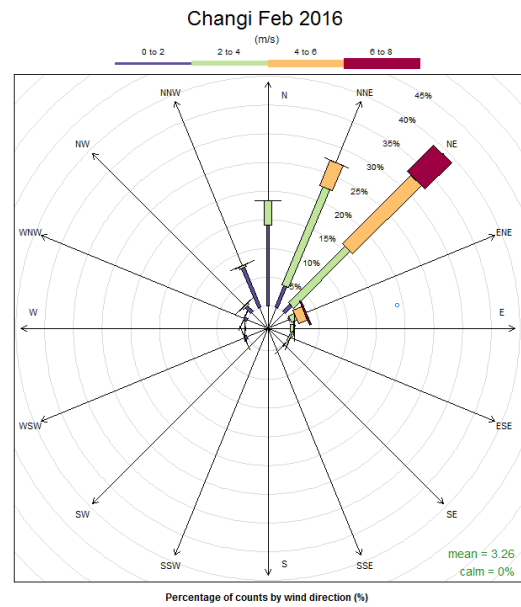
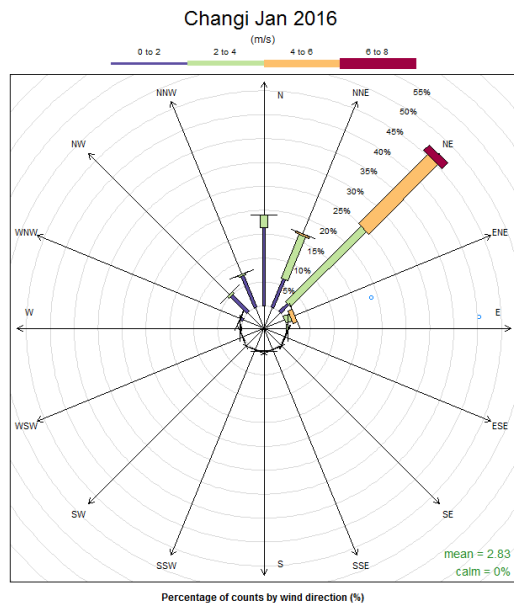


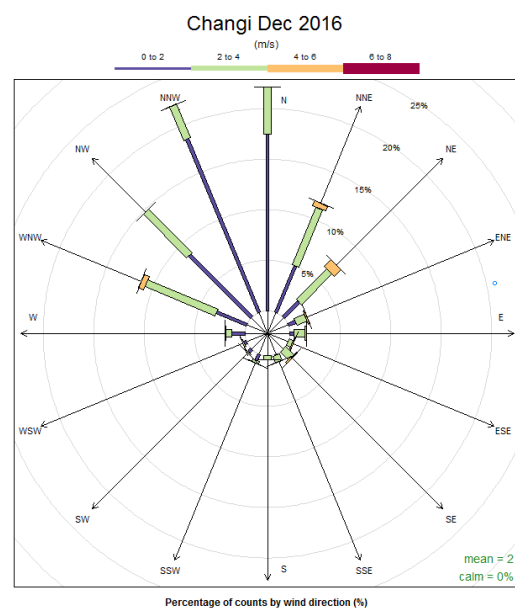
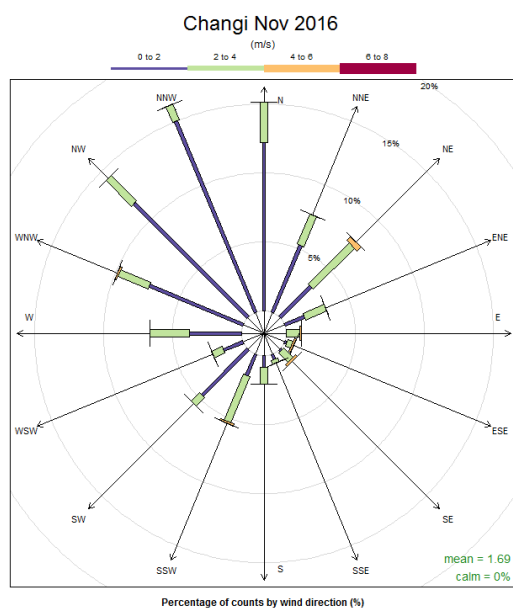
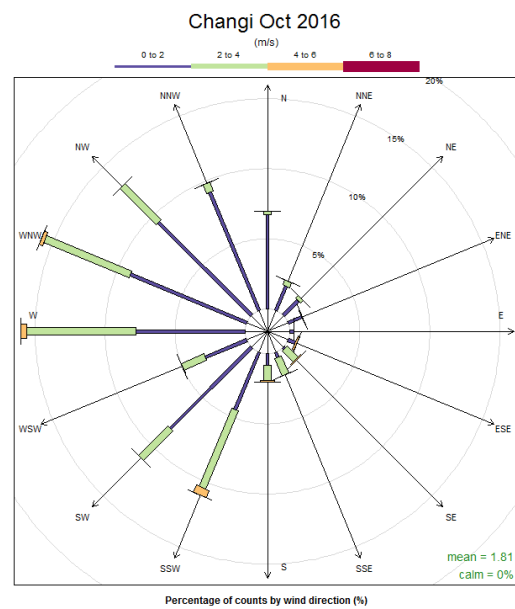
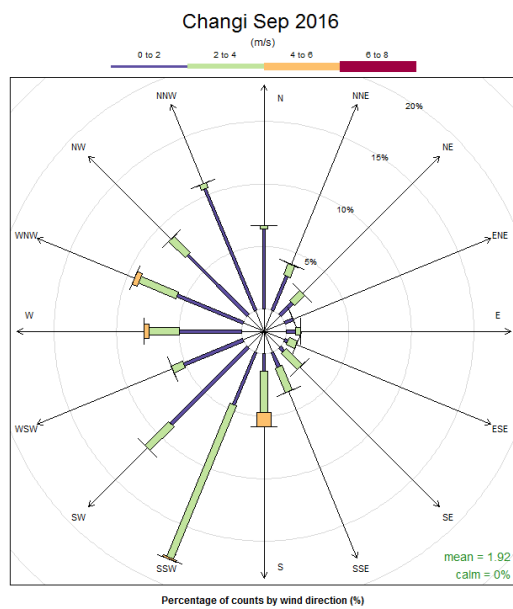
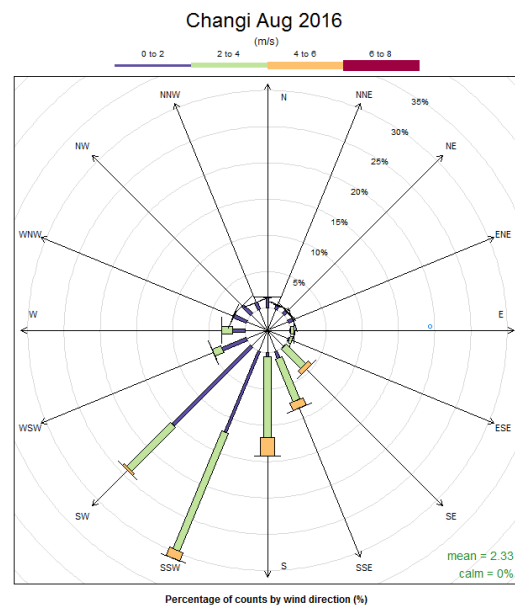
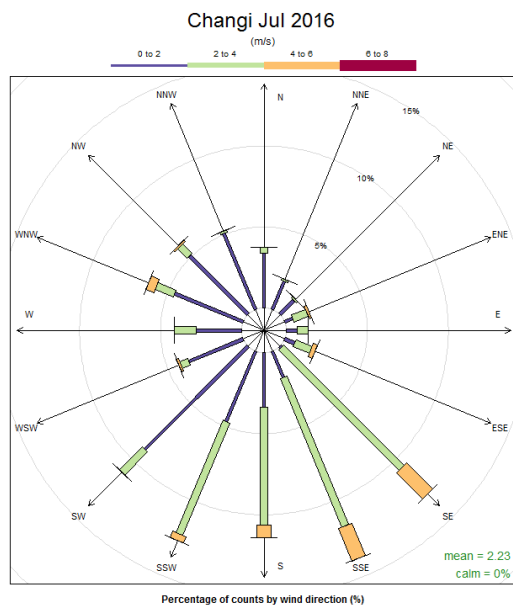






11.2. Monthly Wind Rose of Changi Climate Station





12. Upper Air Data

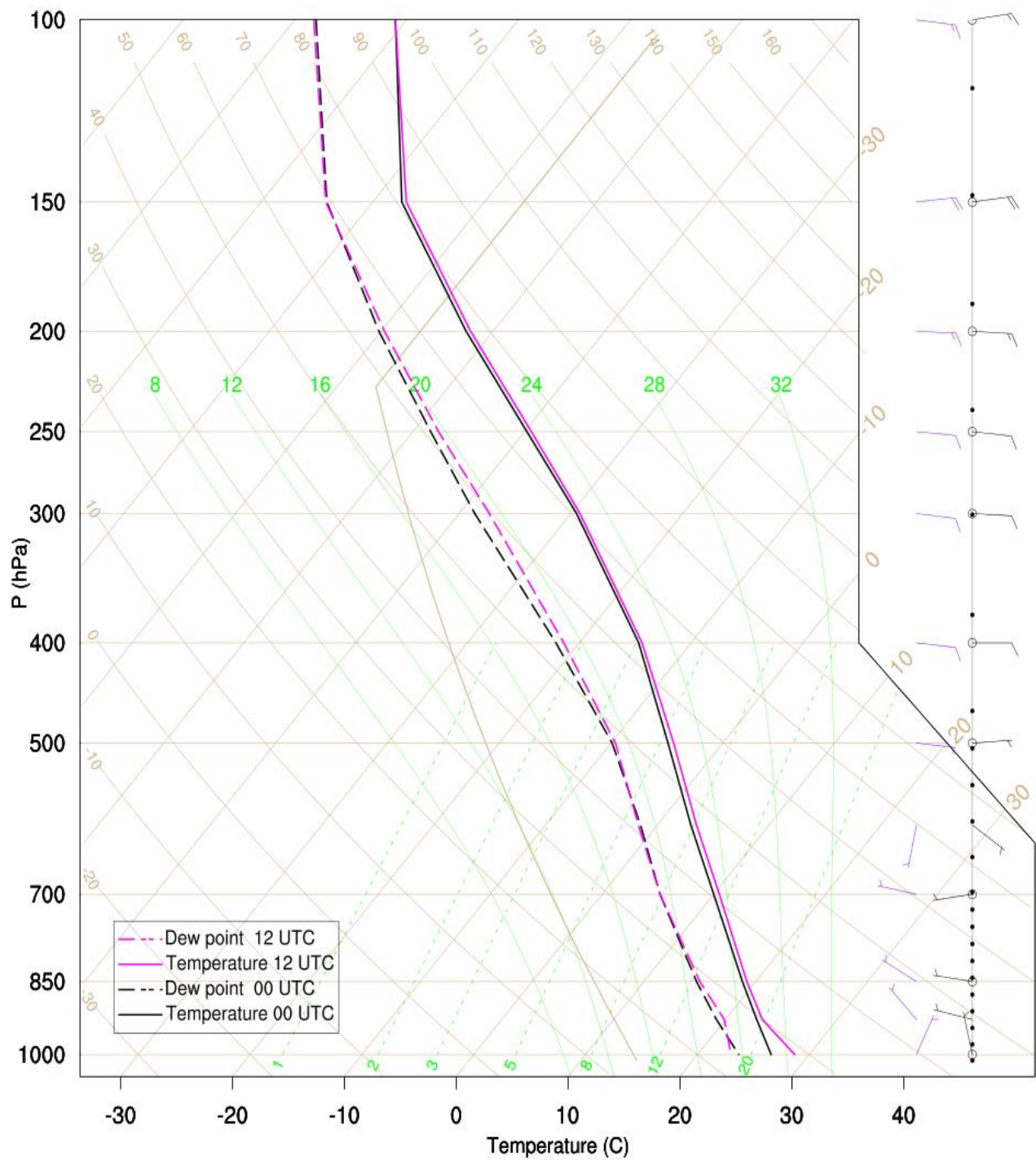
Temperature (°C) at 00 UTC and 12 UTC Singapore, 2016

Pressure	Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1000	00 UTC	26.3	25.7	26.5	27.5	27.5	27.3	27.0	27.4	26.5	26.4	25.7	25.7
	12 UTC	28.2	27.8	28.6	29.4	29.7	28.9	28.8	29.4	29.0	28.9	27.7	27.8
925	00 UTC	22.1	21.6	22.6	23.4	23.5	23.3	23.0	23.1	23.1	22.8	22.4	22.4
	12 UTC	22.7	22.2	22.9	23.9	24.3	23.5	23.4	23.7	23.9	23.7	23.0	22.9
850	00 UTC	18.5	18.4	19.1	19.5	19.6	18.9	18.9	18.7	18.8	18.9	18.4	18.1
	12 UTC	18.6	18.2	19.3	19.9	20.1	19.4	19.1	19.4	19.2	19.3	19.0	18.5
700	00 UTC	10.4	10.0	10.5	10.7	10.7	9.7	9.6	9.7	9.1	10.1	9.5	9.7
	12 UTC	10.6	10.3	11.1	11.4	11.2	10.3	10.2	10.6	10.1	10.2	10.3	10.0
600	00 UTC	3.7	3.3	3.5	3.7	3.8	2.6	2.5	2.4	2.1	3.3	2.8	2.6
	12 UTC	3.9	3.7	4.2	4.4	4.2	2.9	3.0	3.3	3.0	3.2	3.4	3.1
500	00 UTC	-4.9	-4.8	-4.7	-3.9	-4.1	-5.2	-5.5	-5.2	-5.4	-4.5	-4.8	-5.1
	12 UTC	-4.3	-4.0	-3.9	-3.6	-3.5	-5.1	-5.1	-4.9	-5.3	-4.6	-4.1	-4.4
400	00 UTC	-14.5	-14.1	-14.0	-14.2	-13.6	-15.3	-15.6	-15.5	-15.3	-14.6	-14.7	-15.1
	12 UTC	-14.1	-13.9	-13.6	-13.8	-13.4	-14.7	-14.8	-15.1	-15.2	-14.6	-14.2	-14.9
300	00 UTC	-29.6	-28.9	-29.0	-28.8	-28.3	-29.9	-30.5	-30.4	-30.4	-29.3	-29.4	-30.0
	12 UTC	-29.4	-28.7	-28.6	-28.4	-27.8	-29.5	-29.8	-30.0	-29.8	-29.4	-29.1	-29.6
250	00 UTC	-40.0	-39.4	-38.9	-39.0	-38.3	-40.2	-40.6	-40.7	-40.7	-39.8	-39.8	-40.5
	12 UTC	-39.6	-39.0	-38.8	-38.6	-37.9	-39.7	-40.1	-40.2	-40.1	-39.7	-39.4	-39.8
200	00 UTC	-52.1	-52.1	-51.3	-51.3	-50.9	-52.8	-53.0	-52.9	-53.4	-53.0	-52.7	-53.3
	12 UTC	-51.8	-51.7	-51.2	-50.9	-50.3	-52.3	-52.7	-52.5	-52.8	-52.4	-52.1	-52.8
150	00 UTC	-66.1	-67.2	-66.0	-66.1	-66.4	-67.8	-67.8	-67.4	-68.3	-68.7	-68.2	-68.7
	12 UTC	-66.1	-67.0	-65.8	-65.7	-66.0	-67.6	-67.6	-66.7	-67.7	-68.1	-67.8	-68.3
100	00 UTC	-80.8	-79.3	-81.5	-80.6	-82.9	-78.9	-79.6	-78.7	-80.5	-82.0	-85.3	-82.4
	12 UTC	-80.9	-79.1	-80.8	-81.0	-82.3	-79.5	-80.0	-79.9	-79.7	-81.6	-84.8	-82.5
70	00 UTC	-75.7	-76.2	-78.9	-79.4	-78.5	-74.7	-73.5	-72.8	-72.5	-71.8	-75.4	-76.1
	12 UTC	-76.8	-77.4	-79.3	-78.3	-80.3	-76.5	-74.2	-73.3	-73.7	-75.0	-76.8	-78.5
50	00 UTC	-69.8	-71.5	-72.4	-72.6	-71.5	-67.8	-62.4	-61.3	-62.8	-64.6	-65.2	-66.0
	12 UTC	-69.8	-71.9	-73.3	-74.0	-71.7	-69.2	-63.6	-63.5	-63.9	-65.8	-66.5	-66.3
30	00 UTC	-59.6	-58.8	-59.7	-56.7	-55.8	-55.9	-56.5	-57.8	-57.4	-56.6	-57.8	-58.7
	12 UTC	-59.7	-59.2	-59.2	-56.7	-55.5	-55.3	-55.9	-55.6	-58.1	-57.4	-58.3	-60.5
20	00 UTC	-55.0	-55.5	-54.0	-51.2	-51.3	-51.7	-52.2	-53.0	-51.9	-52.1	-52.4	-54.1
	12 UTC	-56.4	-55.2	-54.3	-51.4	-51.0	-50.2	-51.3	-51.4	-52.0	-51.8	-53.0	-53.9
10	00 UTC	-49.1	-49.9	-47.8	-44.6	-44.7	-45.0	-44.4	-47.2	-44.7	-44.3	-46.0	-48.0
	12 UTC	-47.5	-46.5	-46.3	-43.5	-40.8	-42.9	-44.1	-46.1	-43.4	-41.4	-42.4	-45.0

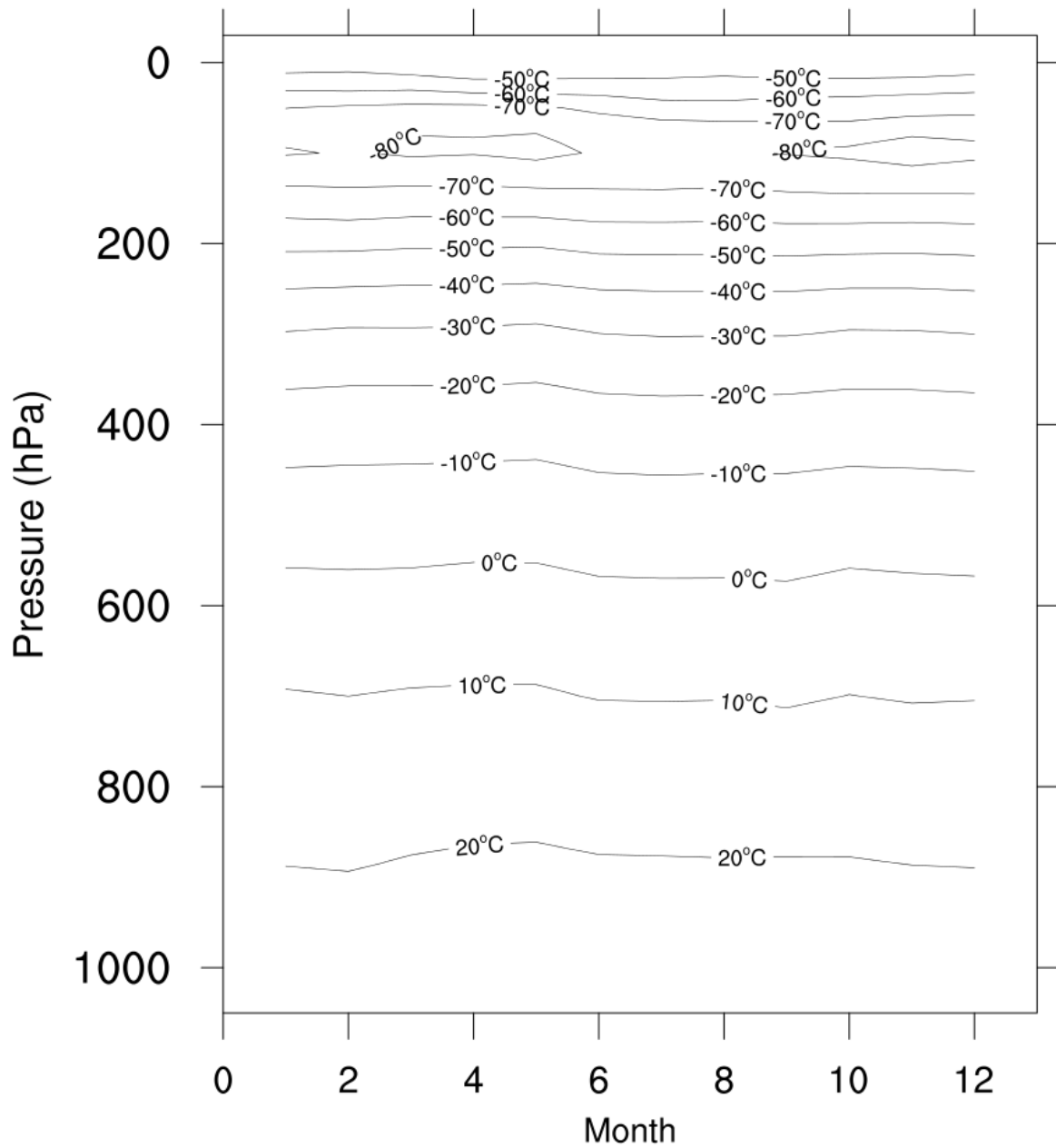
Dew Point (°C) at 00 UTC and 12 UTC Singapore, 2016

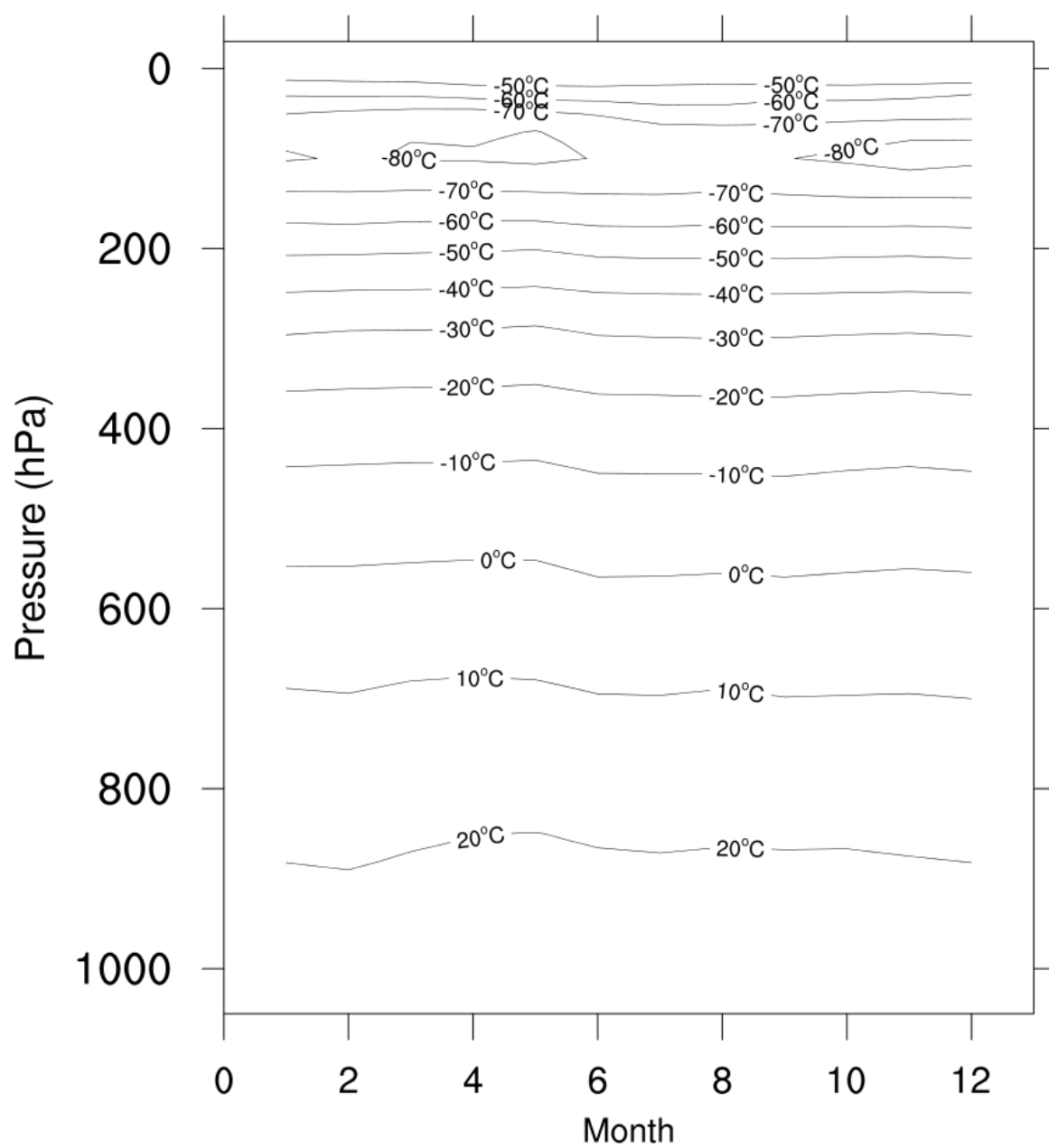
Pressure	Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1000	00 UTC	24.0	23.4	23.8	24.6	24.6	24.2	24.1	23.8	23.2	23.3	23.4	23.0
	12 UTC	23.3	22.7	23.1	23.6	24.1	23.6	23.5	23.1	22.3	22.4	23.5	23.0
925	00 UTC	19.8	19.5	19.0	20.0	20.2	19.0	19.0	19.5	18.6	19.2	19.2	19.0
	12 UTC	20.2	19.7	20.8	21.2	21.2	20.2	19.5	19.8	19.0	18.8	19.8	19.9
850	00 UTC	15.6	14.1	14.4	15.0	15.5	14.8	14.4	15.0	14.5	14.8	15.6	15.0
	12 UTC	16.2	14.7	15.8	16.5	16.1	14.6	14.6	14.4	14.2	14.3	15.5	15.0
700	00 UTC	5.8	5.8	4.6	4.6	7.0	5.1	4.8	4.5	5.5	6.1	6.9	6.2
	12 UTC	6.4	6.1	5.0	5.1	6.7	5.5	4.3	4.3	4.9	5.0	6.8	6.3
600	00 UTC	-3.6	-1.8	-2.5	-1.1	0.5	-0.5	-2.2	-1.8	-0.7	0.7	0.9	-0.5
	12 UTC	-3.6	-2.3	-2.4	-1.2	0.2	-0.2	-1.6	-2.7	-1.0	-0.3	0.8	-0.4
500	00 UTC	-11.1	-8.4	-10.5	-11.6	-8.2	-8.3	-10.3	-10.0	-9.1	-7.3	-7.6	-8.2
	12 UTC	-11.3	-8.3	-10.5	-10.9	-8.4	-7.9	-9.4	-9.9	-8.4	-7.9	-7.2	-8.3
400	00 UTC	-24.1	-22.5	-23.4	-21.3	-20.7	-20.2	-21.4	-21.7	-20.9	-18.2	-18.8	-19.5
	12 UTC	-23.7	-21.0	-23.5	-20.1	-19.1	-19.5	-21.6	-20.9	-19.6	-18.2	-18.0	-17.9
300	00 UTC	-39.7	-37.6	-39.4	-37.5	-36.1	-37.4	-38.0	-37.7	-36.9	-35.1	-35.4	-36.0
	12 UTC	-38.5	-35.3	-38.0	-37.1	-34.8	-35.9	-36.5	-36.9	-35.6	-34.5	-34.4	-34.6
250	00 UTC	-48.2	-46.8	-49.7	-46.7	-46.2	-48.0	-49.2	-46.8	-47.7	-45.9	-45.4	-46.4
	12 UTC	-48.1	-46.1	-48.5	-45.9	-44.9	-46.9	-46.6	-46.6	-47.5	-45.8	-44.5	-45.4
200	00 UTC	-59.8	-59.0	-60.1	-59.1	-58.1	-59.7	-60.6	-59.1	-59.7	-58.8	-58.4	-58.8
	12 UTC	-59.5	-58.7	-60.8	-57.0	-55.8	-59.4	-59.6	-58.2	-59.5	-58.8	-58.0	-58.5
150	00 UTC	-72.9	-73.7	-73.2	-72.2	-71.6	-74.1	-74.3	-73.4	-74.0	-73.9	-73.7	-73.9
	12 UTC	-74.3	-73.4	-73.4	-72.2	-71.7	-73.8	-74.5	-72.6	-74.2	-73.8	-74.1	-73.2
100	00 UTC	-86.7	-87.1	-87.0	-86.3	-87.8	-86.5	-86.2	-86.6	-86.4	-88.1	-89.8	-88.8
	12 UTC	-86.6	-87.1	-87.0	-86.6	-87.6	-86.9	-86.6	-86.9	-86.7	-88.1	-90.1	-88.9
70	00 UTC	-88.1	-88.5	-89.3	-89.2	-89.3	-89.3	-88.9	-89.1	-88.1	-87.5	-87.4	-88.8
	12 UTC	-87.5	-88.7	-89.4	-89.1	-89.4	-88.7	-88.8	-88.7	-87.3	-87.5	-88.2	-89.3
50	00 UTC	-89.8	-89.9	-89.6	-89.8	-91.1	-89.8	-88.0	-87.2	-88.3	-89.6	-87.8	-88.4
	12 UTC	-88.5	-89.2	-89.5	-90.1	-90.0	-90.9	-88.9	-88.8	-89.1	-88.3	-91.0	-88.6
30	00 UTC	-85.9	-85.3	-86.0	-87.8	-87.2	-87.2	-87.7	-88.6	-88.3	-87.7	-88.6	-85.3
	12 UTC	-86.0	-85.6	-89.5	-87.8	-87.0	-86.8	-87.2	-87.0	-88.8	-88.3	-88.9	-90.4
20	00 UTC	-86.6	-87.0	-85.9	-84.0	-84.1	-84.3	-84.7	-85.2	-84.5	-84.6	-84.8	-86.0
	12 UTC	-83.6	-86.8	-86.1	-84.1	-83.9	-83.3	-84.1	-84.1	-84.6	-84.4	-85.2	-85.9
10	00 UTC	-82.6	-83.1	-81.7	-79.5	-79.6	-79.8	-79.4	-81.3	-79.6	-79.3	-80.4	-81.8
	12 UTC	-81.5	-80.8	-80.6	-78.7	-76.9	-78.3	-79.2	-80.5	-78.7	-77.3	-78.0	-79.8

Skew-T: Annual Profile



Monthly Mean Temperature (°C) at 00 UTC in 2016

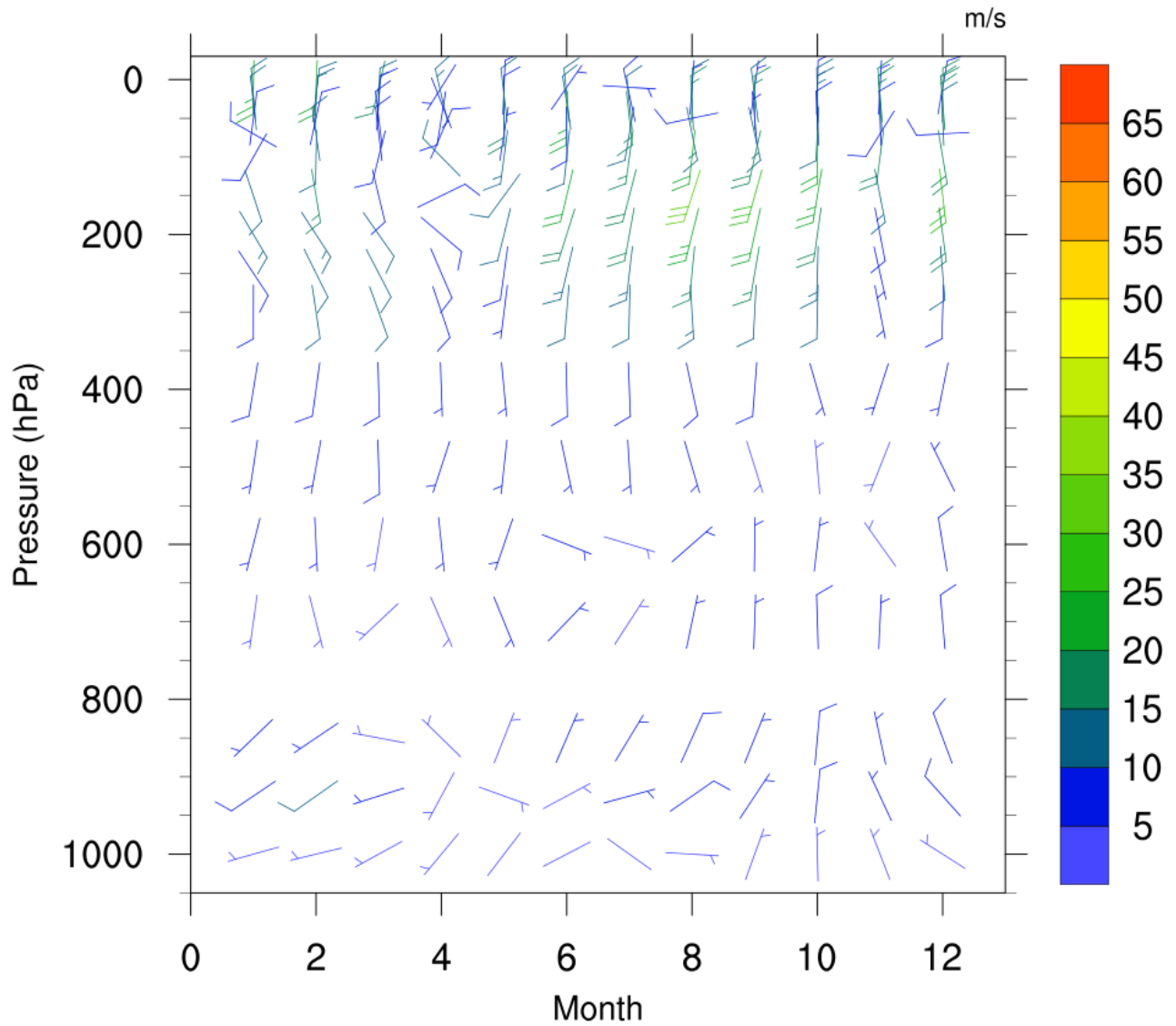


Monthly Mean Temperature ($^{\circ}\text{C}$) at 12 UTC in 2016

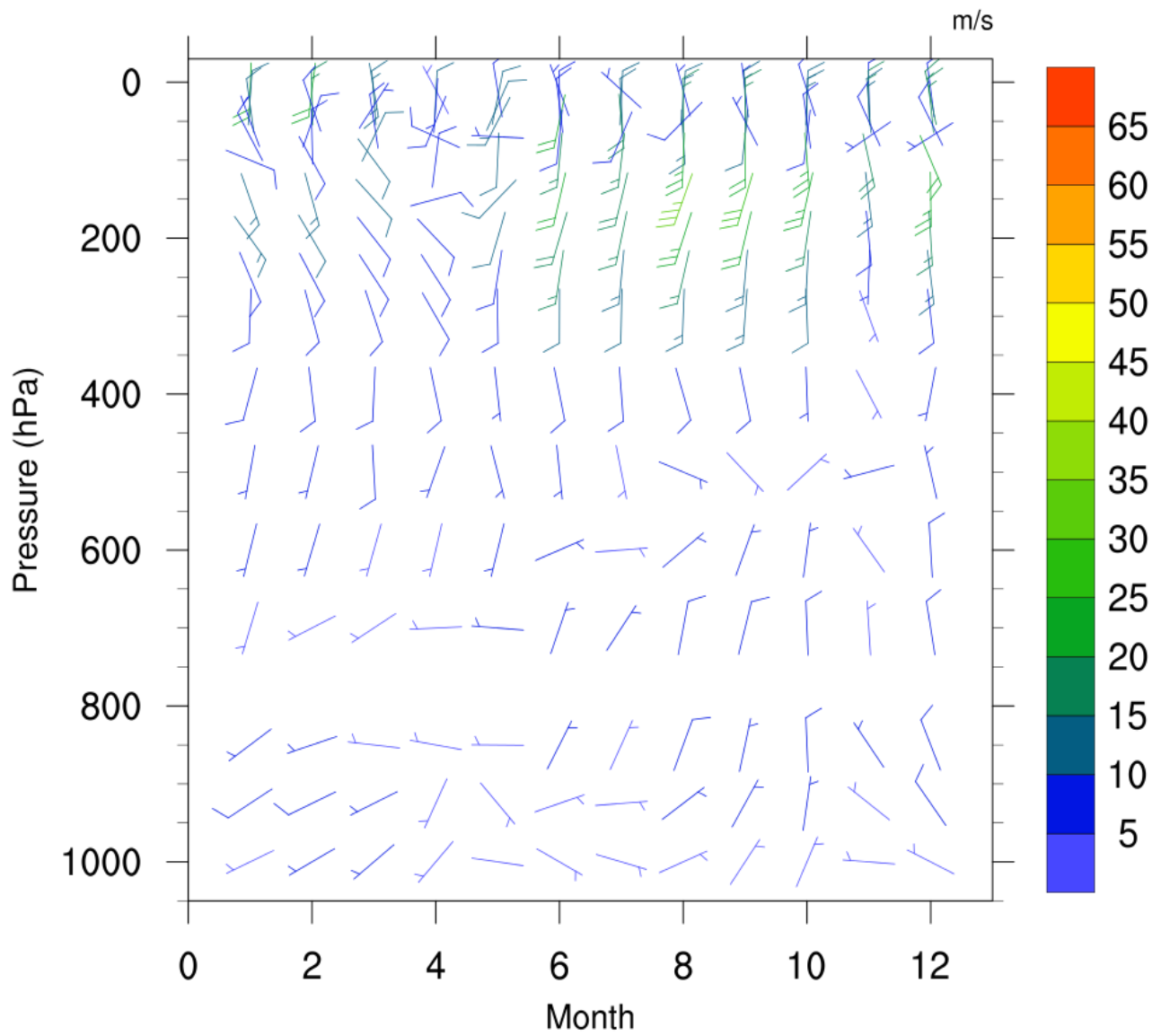
Wind Speed (m/s) at 00 UTC and 12 UTC Singapore, 2016

Pressure	Time	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1000	00 UTC	3.9	4.3	4.3	2.7	2.1	1.9	2.4	2.9	2.5	2.5	2.9	3.3
	12 UTC	4.9	6.0	5.7	3.5	2.3	2.5	2.7	3.1	3.0	2.9	3.0	3.2
925	00 UTC	7.9	10.3	6.6	4.5	4.5	5.0	5.4	7.5	7.2	7.7	6.2	8.0
	12 UTC	7.9	9.5	6.9	4.7	4.0	4.4	4.1	5.8	5.9	5.5	4.9	7.6
850	00 UTC	5.2	6.6	4.8	3.6	4.1	6.4	5.8	8.8	7.1	8.5	5.9	9.1
	12 UTC	5.8	7.3	4.4	3.4	3.9	5.9	4.6	8.5	6.8	7.6	5.7	8.9
700	00 UTC	5.0	5.0	4.1	3.3	5.6	5.9	4.9	7.3	6.8	8.1	5.3	10.0
	12 UTC	4.7	5.0	3.8	4.0	5.8	6.3	5.3	7.5	7.7	8.4	4.9	9.0
600	00 UTC	5.5	6.2	5.0	5.2	5.6	6.1	4.7	5.6	5.5	7.1	4.6	7.7
	12 UTC	5.6	5.6	4.9	4.5	5.3	6.1	4.2	6.1	6.2	7.3	4.8	7.8
500	00 UTC	6.3	7.0	9.5	6.4	5.6	5.3	5.2	5.5	4.9	4.9	5.0	5.6
	12 UTC	5.8	6.3	8.7	6.0	5.4	5.6	5.0	5.1	4.4	4.9	5.1	6.2
400	00 UTC	9.6	9.3	9.1	7.1	6.5	7.7	8.3	8.9	8.9	6.2	5.3	5.4
	12 UTC	8.7	9.0	8.9	7.5	5.8	8.7	8.6	9.4	7.9	6.1	4.6	5.5
300	00 UTC	9.1	10.3	10.5	7.9	7.3	11.3	11.0	13.4	11.4	10.6	5.6	9.6
	12 UTC	8.9	9.3	9.3	8.2	8.1	11.6	12.1	14.8	12.7	10.1	5.0	8.6
250	00 UTC	9.4	10.6	10.8	9.0	8.8	14.5	14.3	16.4	15.3	13.5	7.1	12.5
	12 UTC	9.3	10.0	10.0	9.1	9.2	15.1	13.8	17.3	14.4	12.7	6.1	12.6
200	00 UTC	13.0	12.7	10.1	9.2	10.6	17.7	17.7	23.6	20.8	17.7	8.6	18.5
	12 UTC	12.7	12.2	9.7	8.8	10.5	18.0	16.7	22.9	20.1	16.5	8.3	16.9
150	00 UTC	12.0	15.5	9.5	9.4	11.8	21.3	18.1	32.3	27.8	22.7	13.2	25.2
	12 UTC	13.6	14.6	10.3	9.8	12.0	21.1	18.3	33.8	27.7	23.1	12.6	23.2
100	00 UTC	8.6	10.1	9.4	10.4	13.5	11.5	16.7	22.1	18.0	22.4	18.4	18.6
	12 UTC	8.1	9.9	10.7	9.6	12.1	15.8	16.3	24.0	20.8	24.3	18.1	20.4
70	00 UTC	9.5	10.1	9.4	9.6	6.6	8.5	10.4	13.3	12.9	10.9	7.5	8.9
	12 UTC	8.1	8.4	10.2	9.5	5.1	8.6	8.8	12.9	11.5	9.7	5.2	6.8
50	00 UTC	7.9	8.7	8.0	8.6	19.0	23.1	16.8	7.9	7.1	9.0	9.6	12.1
	12 UTC	6.5	8.5	7.7	8.2	13.8	21.1	17.5	8.6	7.3	8.8	8.5	8.6
30	00 UTC	11.5	11.6	8.0	6.6	8.0	11.2	12.1	16.7	16.2	15.0	16.8	18.0
	12 UTC	10.1	8.1	6.7	6.7	11.2	9.9	10.8	15.8	15.3	13.7	14.4	16.7
20	00 UTC	11.4	14.1	12.7	13.0	10.2	10.2	10.0	12.4	11.6	14.5	15.8	17.8
	12 UTC	11.9	15.1	14.2	11.4	11.5	9.3	12.0	13.6	12.8	15.0	17.4	15.6
10	00 UTC	24.1	20.8	16.8	6.4	7.8	6.8	6.7	7.0	6.6	8.1	7.0	8.1
	12 UTC	21.5	20.1	14.5	4.5	8.5	7.4	6.0	6.9	5.8	7.8	8.6	8.5

Wind Profile at 00 UTC in 2016

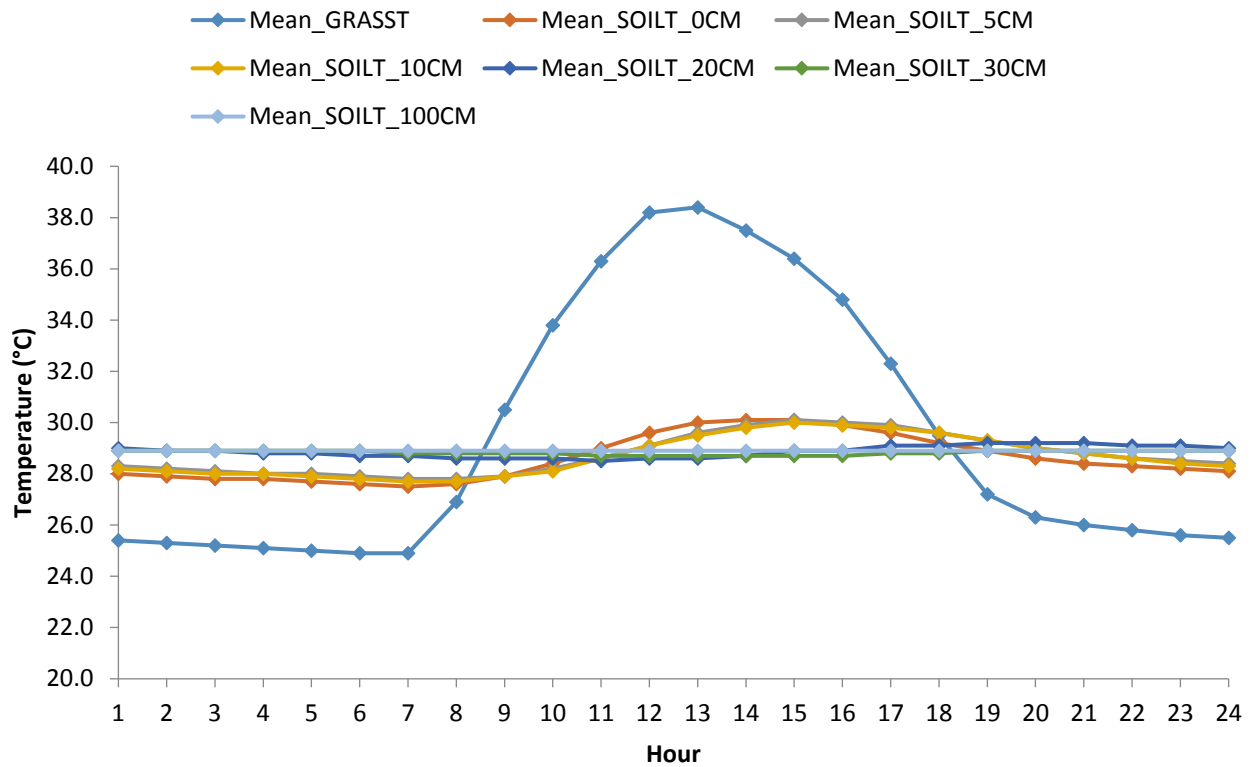


Wind Profile at 12 UTC in 2016

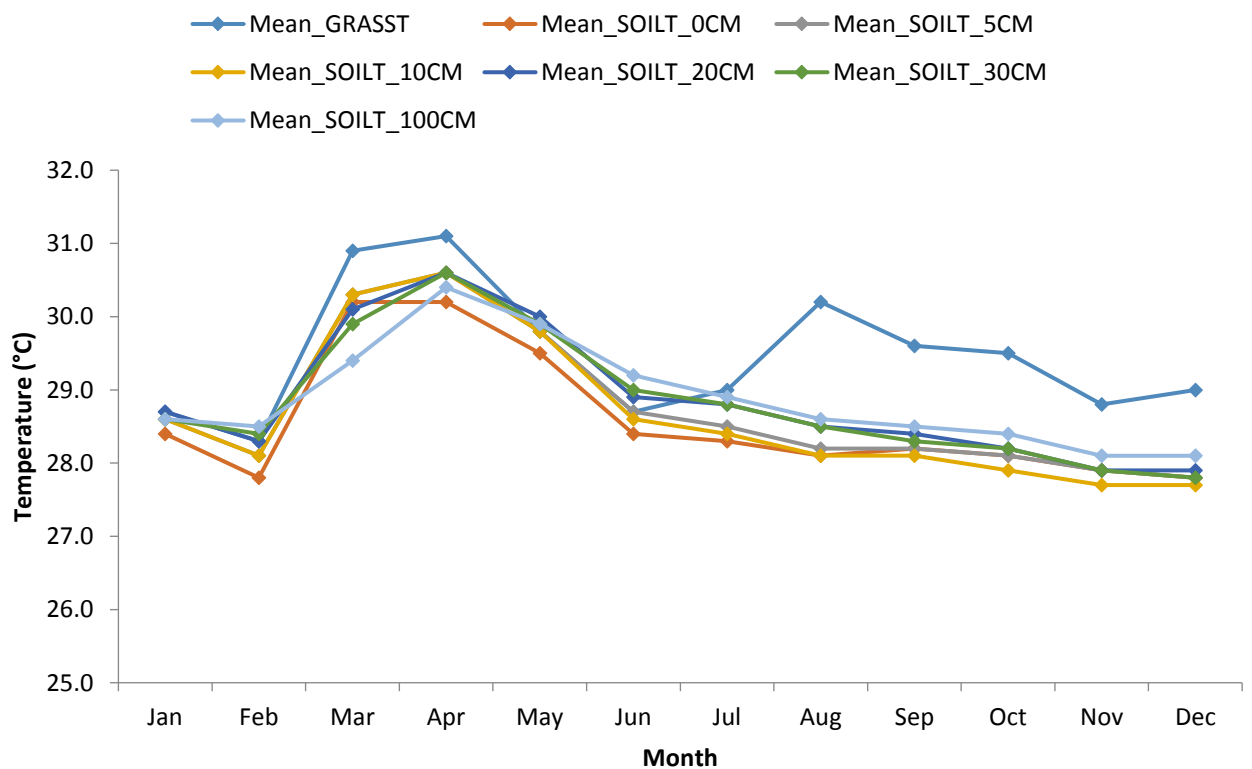


13. Soil Data

Changi Hourly Soil Temperature



Changi Monthly Soil Temperature



Annex 1 Instruments of the Manned Meteorological Station

Since 1984, the manned meteorological station serving the Changi International Airport has been designated as the Climate Station of Singapore. The locations of the other 4 manned stations are at Paya Lebar, Tengah, Seletar, and Sembawang. The Paya Lebar station is the longest serving meteorological station, which has been operational since the 1950s. The Changi station operates 24 hours every day while the other 4 meteorological stations record observations only from 4 am to 11 pm.

ID	Station	Parameters	Operational Period	Instruments	Location
24	Changi Climate Station	Pressure	1 Jun, 1981 to 1 Nov, 2010	WilhLambrecht ⁴	Indoor
			1 Nov, 2010 to Present	Vaisala ⁵	Outdoor
		Temperature	1 Jun, 1981 to 1 Aug, 2011	Zeal/Casella (Mercury) ⁶	Outdoor
			1 Aug, 2011 to Present	Vaisala	Outdoor
		Humidity	1 Jun, 1981 to 1 Aug, 2011	Zeal/Casella (Mercury)	Outdoor
			1 Aug, 2011 to Present	Vaisala	Outdoor
		Surface Wind	1 Jun, 1981 to 1 Aug, 2011	Munro Pressure Tube ⁷	Outdoor
			1 Aug, 2011 to Present	Vaisala	Outdoor
		Rainfall	1 Jun, 1981 to 1 Nov, 2010	Munro Rain Gauges ⁷	Outdoor
			1 Nov, 2010 to Present	Vaisala	Outdoor
06	Paya Lebar Meteorological Station	Pressure	1 Aug, 1955 to 1 Jan, 1982	F Darton & Company ⁸	Indoor
			1 Jan, 1982 to Present	Negretti and Zambra ⁹	Outdoor
		Temperature	1 Aug, 1955 to 1 Aug, 1981	Zeal/Casella (Mercury)	Outdoor
			1 Aug, 1981 to Present	Casella	Roof top
		Humidity	1 Aug, 1955 to 1 Aug, 1981	Zeal/Casella (Mercury)	Outdoor
			1 Aug, 1981 to Present	Casella	Roof top
23	Tengah Meteorological Station	Pressure	1 Jan, 1950 to 1 Oct, 2003	THIES Clima	Indoor
			1 Oct, 2003 to Present	Sutron Corp	Indoor
		Temperature	1 Jan, 1950 to 1 Oct, 2003	Zeal/Casella (Mercury)	Outdoor
			1 Oct, 2003 to Present	Sutron Corp	Outdoor
		Humidity	1 Jan, 1950 to 1 Oct, 2003	Zeal/Casella (Mercury)	Outdoor
			1 Oct, 2003 to Present	Sutron Corp	Outdoor
25	Seletar Meteorological Station	Pressure	1 May, 1970 to 31 May, 2005	THIES Clima ¹⁰	Indoor
			1 Jun, 2005 to Present	ALMOS/ Vaisala	Outdoor
		Temperature	1 May, 1970 to 31 May, 2005	Zeal/Casella (Mercury)	Outdoor
			1 Jun, 2005 to Present	ALMOS/ Vaisala	Outdoor
		Humidity	1 May, 1970 to 31 May, 2005	Zeal/Casella (Mercury)	Outdoor
			1 Jun, 2005 to Present	ALMOS/ Vaisala	Outdoor
		Rainfall	1 May, 1970 to Present	Munro Rain Gauges	Outdoor

⁴www.lambrecht.net

⁵www.vaisala.com

⁶www.zeal.co.uk and www.casellameasurement.com/cl_ne_manual.htm

⁷www.munroinstruments.com

⁸www.russell-scientific.co.uk

⁹www.negrettiandzambra.co.uk

¹⁰www.thiesclima.com/air-pressure.html

ID	Station	Parameters	Operational Period	Instruments	Location
80	Sembawang Meteorological Station	Pressure	1 Apr, 1986 to 30 Sep, 2003	WilhLambrecht	Indoor
			1 Oct, 2003 to Present	Sutron Corp ¹¹	Indoor
		Temperature	1 Apr, 1986 to 30 Sep, 2003	Zeal/Casella (Mercury)	Outdoor
			1 Oct, 2003 to Present	Sutron Corp	Outdoor
		Humidity	1 Apr, 1986 to 30 Sep, 2003	Zeal/Casella (Mercury)	Outdoor
			1 Oct, 2003 to Present	Sutron Corp	Outdoor
		Rainfall	1 Apr, 1986 to Present	Munro Rain Gauges	Outdoor

Table 6: Instruments and their operational dates at the Manned Meteorological Stations

¹¹www.sutron.com

Annex 2 Instruments of the Manual Rainfall Station

Before the AWSs system, there were a number of manual rain gauges in operation in Singapore. Rainfall was recorded on continuous strips of paper rolls, and operators had to visit the stations once a week to collect and replace them. Among the rain gauges used in the past were the natural siphon rain gauge, the tilting siphon rain gauge and the Hellmann rain gauge.

The tilting siphon rain gauge, produces an autographic record of rainfall accumulation from a pen attached to a float in the rainfall chamber of the instrument. The chamber tilts and empties when the pen reaches the top of the chart at 25mm rainfall. Siphoning starts when the chamber tilts.

The natural siphon rain gauge works in a similar mechanism as the tilting siphon rain gauge except the way in which it siphons. It consists of two coaxial tubes to the sides of the float container. The annular gap between the inner and outer tubes is so small that siphoning can start abruptly when water reaches the top of the tube without any mechanical trigger.

The Hellman rain gauge is an autographic rain gauge with 200cm² circular collecting area. Measuring 453mm tall, it consists of a protective housing, tunnel, built-in measuring vessel with float and siphoning device, and records on a clockwork driven drum with nominal recording period of 7 days.

Station Number	Location	Operational Period		Instruments	Lat.(N)	Long. (E)
07	Macritchie Reservoir	1 Jan, 1953	26 May, 1982	Natural	1°20.51	103°50.03
	Macritchie Reservoir	27 May, 1982	7 May, 1987	Tilting	1°20.51	103°50.03
	Macritchie Reservoir	8 May, 1987	Present	Hellmann	1°20.51	103°50.03
	Macritchie Reservoir	12 Feb, 2009	Present	Vaisala	1°20.51	103°50.03
11	Ama Keng Police Station	1 Feb, 1954	26 Nov, 1984	Tilting	1°24.00	103°42.00
	Ama Keng Police Station	27 Nov, 1984	30 Jun, 1988	Hellmann	1°24.00	103°42.00
	Ama Keng Telephone Exchange	1 Jul, 1988	31 Oct, 2003	Hellmann	-	-
	Choa Chu Kang Cemetery Office	1 Nov, 2003	30 Sep, 2009	Hellmann	1°22.47	103°41.63
	Choa Chu Kang Cemetery Office	5 Mar, 2009	Present	Vaisala	1°22.46	103°41.62
29	Serangoon Sewage Treatment Work	1 Jan, 1949	20 Mar, 1975	-	1°23.15	103°55.41
	Serangoon Sewage Treatment Work	21 Mar, 1975	29 Apr, 1977	Natural	1°23.15	103°55.41
	Serangoon Sewage Treatment Work	30 Apr, 1977	30 Apr, 1987	Tilting	1°23.15	103°55.41
	Serangoon Sewage Treatment Work	1 May, 1987	30 Jun, 2010	Hellmann	1°23.15	103°55.41
	Pasir Ris Home Team Chalets	5 May, 2010	Present	Vaisala	1°23.19	103°56.48
31	Singapore Harbour Board Gate 9	1 Mar, 1948	30 Sep, 1976	Tilting	1°16.00	103°49.00
	Saint James Complex	1 Jun, 1976	15 Apr, 1986	Tilting	1°15.93	103°49.47
	Saint James Complex	16 Apr, 1986	31 Mar, 2010	Hellmann	1°15.93	103°49.47
	CHIJ (Kellock) Primary School	28 Apr, 2010	Present	Vaisala	1°16.46	103°49.69
33	Tanjong Kling Police Station	01 Jan, 1953	31 Dec, 1969	Tilting	1°18.50	103°43.00
	Tanjong Kling Police Station	01 Jan, 1973	25 Sep, 1977	Hellmann	1°18.50	103°43.00
	Marine Police Station Jurong Pier	26 Sep, 1977	31 Aug, 1999	Hellmann	-	-
	Jurong Pier Road	1 Sep, 1999	30 Apr, 2010	Hellmann	1°18.49	103°42.60
	Jurong Pier Road	3 Feb, 2010	Present	Vaisala	1°18.49	103°42.59
35	Ulu Pandan Sewage Treatment Work	19 Jun, 1975	30 Nov, 1981	Tilting	1°19.97	103°45.34
	Ulu Pandan Sewage Treatment Work	1 Dec, 1981	1 Mar, 2010	Hellmann	1°19.97	103°45.34
	Ulu Pandan Sewage Treatment Work	27 Feb, 2009	Present	Vaisala	1°19.95	103°45.30
36	Woodleigh Filter	1 Dec, 2000	Mar, 2010	Hellmann	1°20.29	103°51.94
	Woodleigh Filter	19 Jul, 2009	Present	Vaisala	1°20.26	103°51.97
40	Singapore Orchid's	16 Oct, 1965	7 May, 1987	Tilting	1°24.40	103°47.00

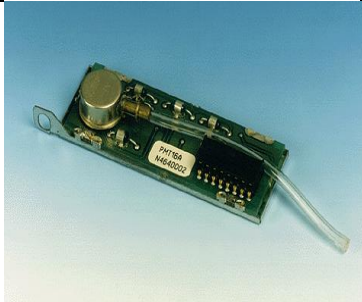
Station Number	Location	Operational Period		Instruments	Lat.(N)	Long. (E)
	Singapore Orchid's	8 May, 1987	31 Mar, 2010	Hellmann	1°24.40	103°47.00
	Singapore Orchid's	11 Dec, 2009	Present	Vaisala	1°24.40	103°46.99
43	Upper Air Observatory	1 Apr, 1962	31 Dec, 2011	Tilting	1°20.44	103°53.29
	Upper Air Observatory	28 Apr, 2011	Present	Vaisala	1°20.44	103°53.29
44	Nanyang Technical University	1 Apr, 1967	31 Dec, 1971	Tilting	1°20.71	103°41.00
	Nanyang Technical University	1 Jan, 1972	31 Aug, 2009	Hellmann	1°20.71	103°41.00
	Nanyang Technological University	17 Mar, 2009	Present	Vaisala	1°20.71	103°41.00
46	Singapore Golf Club	1 Sep, 1967	3 Mar, 1978	Natural	1°20.50	103°48.64
	Singapore Golf Club	4 Mar, 1978	31 Mar, 2010	Hellmann	1°20.50	103°48.64
	Singapore Golf Club	21 Jan, 2010	Present	Vaisala	1°20.49	103°48.65
50	Singapore Boy's Home	1 Nov, 1968	31 Aug, 1973	Tilting	-	-
	Singapore Boy's Home	1 Sep, 1973	31 Oct, 1994	Hellmann	-	-
	Ngee Ann Polytechnic	1 Nov, 1994	30 Jun, 2010	Hellmann	1°19.91	103°46.57
	Ngee Ann Polytechnic	14 Apr, 2010	Present	Vaisala	1°19.91	103°46.57
55	Trafalgar Station	12 Apr, 1973	30 Aug, 1979	Tilting	1°23.00	103°54.00
	Trafalgar Station	31 Aug, 1979	24 Mar, 1997	Hellmann	1°23.00	103°54.00
	Woodbridge Hospital	25 Mar, 1997	3 Jan, 2010	Hellmann	1°23.01	103°53.16
	Woodbridge Hospital	6 Nov, 2008	Present	Vaisala	1°23.02	103°53.16
60	Sentosa Telecom Station	1 May, 1972	15 Jan, 1976	-	1°14.87	103°50.18
	Sentosa Telecom Station	16 Jan, 1976	31 Dec, 1980	Tilting	1°14.87	103°50.18
	Sentosa Telecom Station	1 Jan, 1981	1 Apr, 2010	Hellmann	1°14.87	103°50.18
	Sentosa	4 Mar, 2010	Present	Vaisala	1°15.02	103°49.65
61	Opera Estate	1 Jan, 1976	31 Dec, 1981	Tilting	1°19.00	103°55.00
	Chai Chee Pumping Station	1 Jan, 1982	21 Oct, 1987	Hellmann	-	-
	Chai Chee Complex	22 Oct, 1987	4 Apr, 2010	Hellmann	1°19.38	103°55.30
	Ping Yi Secondary School	15 Dec, 2009	Present	Vaisala	1°19.63	103°55.24
63	International Road Pumping Station	1 Nov, 1976	17 Aug, 1982	Tilting	1°19.65	103°42.25
	International Road Pumping Station	18 Aug, 1982	3 Nov, 2009	Hellmann	1°19.65	103°42.25
	International Road Pumping Station	24 Mar, 2009	Present	Vaisala	1°19.65	103°42.25
64	Bukit Panjang Sewage Treatment Work	28 Nov, 1977	30 Nov, 1984	Tilting	-	-
	Bukit Panjang Telephone Exchange	1 Dec, 1984	31 Mar, 2010	Hellmann	1°22.94	103°45.64
	Bukit Panjang Telecom	7 Dec, 2009	Present	Vaisala	1°22.94	103°45.64
66	Kranji Reservoir	1 Jan, 1978	2 Nov, 2009	Hellmann	1°26.32	103°44.16
	Kranji Reservoir	23 Oct, 2008	Present	Vaisala	1°26.32	103°44.16
71	Kent Ridge Met. Station	1 Oct, 1980	11 Apr, 1984	Tilting	1°18.10	103°46.42
	Kent Ridge Road	12 Apr, 1984	3 Jan, 2010	Hellmann	1°17.54	103°46.89
	Kent Ridge Road, CRISP	24 Mar, 2009	Present	Vaisala	1°17.54	103°46.89
72	Prince Edward Road	1 Jul, 1982	Present	Hellmann	1°16.43	103°50.89
	Prince Edward Road	27 Jan, 2010	Present	Vaisala	1°16.43	103°50.89
77	Clarence Lane Pumping Station	1 Jan, 1980	23 Apr, 1990	Tilting	1°17.40	103°48.90
	Clarence Lane Pumping Station	24 Apr, 1990	14 Dec, 1998	Hellmann	1°17.40	103°48.90
	MOE Kay Siang Road	15 Dec, 1998	1 Apr, 2010	Hellmann	1°17.10	103°48.80
	Queenstown Secondary School	23 Nov, 2009	Present	Vaisala	1°17.62	103°48.76
78	Poole Road	1 Jul, 1977	24 Aug, 1984	Tilting	1°18.42	103°53.44
	Poole Road	25 Aug, 1984	4 Jan, 2010	Hellmann	1°18.42	103°53.44
	Poole Road Pumping Station	24 Sep, 2008	Present	Vaisala	1°18.42	103°53.44
79	Power Building Somerset/ Triple One	1 Sep, 1984	Present	Hellmann	1°18.02	103°50.23
	Triple One Somerset Building	24 Mar, 2011	Present	Vaisala	1°18.02	103°50.23
81	Punggol Port Road	1 Jun, 1986	31 Dec, 2002	Hellmann	1°24.40	103°55.10
	Punggol 17 th Ave	1 Jan, 2003	28 Feb, 2010	Hellmann	1°25.00	103°54.32
	Punggol Secondary School	4 Jun, 2009	Present	Vaisala	1°24.17	103°54.57
82	Tuas Incinerator	1 Aug, 1986	1 Jul, 2010	Hellmann	1°19.48	103°38.11

Station Number	Location	Operational Period		Instruments	Lat.(N)	Long. (E)
	Tuas Incinerator	3 Mar, 2009	Present	Vaisala	1°19.49	103°38.11
89	Tuas Fire Station	1 Jan, 1999	14 Sep, 2010	Hellmann	1°19.19	103°39.68
	Tuas Fire Station	2 Oct, 2008	Present	Vaisala	1°19.19	103°39.68
90	CCAB Bukit Timah Road	1 Jun, 1995	2 Nov, 2009	Hellmann	1°19.15	103°49.16
	CCAB Bukit Timah Road	3 Mar, 2009	Present	Vaisala	1°19.15	103°49.16
91	Yishun Ave 5	1 Jul, 1995	1 Oct, 2009	Hellmann	1°25.80	103°49.84
	Yishun Ave 5	19 May, 2009	Present	Vaisala	1°25.80	103°49.84
92	NACLI, South Buona Vista	1 Sep, 1995	Present	Hellmann	1°17.05	103°47.33
	NACLI, South Buona Vista	2 Mar, 2009	Present	Vaisala	1°17.05	103°47.33
94	Pasir Ris Street 51	1 Feb, 1999	1 Jul, 2010	Hellmann	1°21.97	103°57.17
	Coral Secondary School	18 Mar, 2010	Present	Vaisala	1°22.08	103°56.94

Table 7: Locations and instruments of the Manual Rainfall Stations

Annex 3 Instruments of the Automatic Weather Station

MSS employs an array of sensors and instruments that measures and records different meteorological parameters. These include radiation shield sensor, ultrasonic wind sensor, temperature and humidity sensor, electronic tipping bucket rain gauge, and pressure sensor. Information recorded by these sensors is transmitted wirelessly to the Main Meteorological Office located at terminal building of the Changi International Airport.

Instruments	General Specifications	Reference Picture
Vaisala Rain Gauge RG13	• Contact closure every 0.2 mm • Constant flow rate from siphoning device at base of funnel • Area of aperture 400 cm²	
Vaisala HMP45A and HMP45D Relative Humidity and Temperature Probes, Vaisala HUMICAP® Sensor	• Measurement range from -39.2 to 60 °C and 0.8 to 100% RH • Output scale from -40 to 60 °C and 0 to 100 % RH • Uncertainty at 20 °C is ± 0.2 °C, $\pm 2\%$ RH for 0 to 90 % RH and $\pm 3\%$ RH for 90 to 100 % RH	
Vaisala DTR503 Radiation Shield	• 12 plate plastic shield to house humidity and temperature sensors • White outer surface, black inner surface	
Vaisala WMT50 Ultrasonic Wind Sensor	• Measuring range from 0 to 60 m/s • Response time 0.25 s • Accuracy (0 to 35 m/s) ± 0.3 m/s or $\pm 3\%$, whichever is greater • Accuracy (35 to 60 m/s) $\pm 5\%$ • Accuracy (wind direction) $\pm 3\%$	
Vaisala PMT16A Pressure Sensor	• Measurement range from 600 to 1100 hPa • Total uncertainty ± 0.3 hPa	

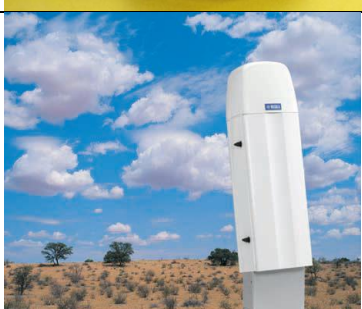
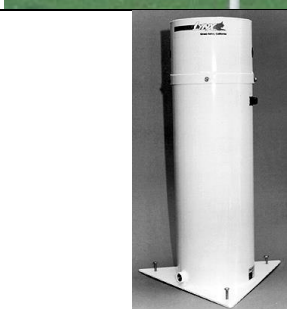
Kipp & Zonen CNR 1 Net Radiometer	- Measures short and long-wave radiation - Response time less than 18 seconds - Daily uncertainty $\pm 10\%$	
Kipp & Zonen CUV 4 Broadband UV Radiometer	- Spectral range 305 to 385 nm - Response time less than 1 second - Maximum irradiance 100 W/m²	
Middleton Solar UVR1-B Narrow-band UV-B global spectral radiometer	- Spectral range 280 to 315 nm - Response time less than 0.5 second	
Vaisala CL31 Celiometer	- Measurement range from 0 to 7.5 km - Measurement cycle adjustable between 2 and 120 seconds - Reporting resolution in 5 m	
Vaisala FD12 Visibility Meter	- Measurement range from 10 to 50000 m - Instrument uncertainty $\pm 4\%$	
Nova Lynx Model 255-100 Analog Output Evaporation Gauge	- Measurement range from 0 to 10 inches - Reporting resolution in 0.01 inches - Uncertainty $\pm 0.25\%$	

Table 8: Current list of instruments in use in MSS