

每月天氣摘要 二零一四年十二月

Monthly Weather Summary December 2014



目錄

	<u>頁</u>
1. 二零一四年十二月天氣回顧	1
2. 二零一四年十二月影響北太平洋西部和南海的熱帶氣旋	5
3. 二零一四年十二月每日天氣圖	8
4. 二零一四年十二月氣象觀測資料	12
5. 二零一四年天氣概況	16

Contents

	<u>Page</u>
1. Weather Review of December 2014	2
2. Tropical Cyclones over the western North Pacific and the South China Sea in December 2014	6
3. Daily Weather Maps for December 2014	8
4. Meteorological Observations for December 2014	12
5. The Year's Weather - 2014	18

二零一五年一月出版

香港天文台編製
香港九龍彌敦道134A

1. 除特別列明外，所有時間均以協調世界時加八小時為準。
2. 除特別列明外，所有氣象要素數值均在香港天文台錄得。
3. 因惡劣天氣引致的人命傷亡及財物損毀數字是由各政府部門提供或根據報章報導輯錄。
4. 本刊物的編製和發表，目的是促進資料交流。香港特別行政區政府（包括其僱員及代理人）對於本刊物所載資料的準確性、完整性或效用，概不作出明確或暗示的保證、聲明或陳述；在法律許可的範圍內，對於提供或使用這些資料而可能直接或間接引致任何損失、損壞或傷害（包括死亡），亦不負任何法律承擔或責任（包括疏忽責任）。
5. 未經香港天文台台長同意，不得翻印本刊物任何部分內容。



Published : January 2015

Prepared and published by : Hong Kong Observatory,
134A Nathan Road,
Kowloon,
Hong Kong.

1. Unless otherwise stated, all times given are 8 hours ahead of Co-ordinated Universal Time (UTC).
2. Values of meteorological elements are those recorded at the Hong Kong Observatory, unless otherwise specified.
3. Figures of damage and casualties caused by weather phenomena are compiled from press reports and information provided by other government departments.
4. This publication is prepared and disseminated in the interest of promoting the exchange of information. The Government of the Hong Kong Special Administrative Region (including its servants and agents) makes no warranty, statement or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained herein, and in so far as permitted by law, shall not have any legal liability or responsibility (including liability for negligence) for any loss, damage or injury (including death) which may result whether directly or indirectly, from the supply or use of such information.
5. Permission to reproduce any part of this publication should be obtained through the Director of the Hong Kong Observatory.

1. 二零一四年十二月天氣回顧

受頻密的冬季季候風補充及長時間多雲有雨的天氣所影響，二零一四年十二月比正常清涼。本月的平均氣溫為 16.3 度，較正常數值 17.9 度低 1.6 度。全月總日照時間為 115.3 小時，較正常數值 172.2 小時少約百分之 33。月總雨量為 44.7 毫米，較正常的 26.8 毫米多約百分之 67。而本年的總雨量為 2638.3 毫米，亦較正常數值 2398.5 毫米多約百分之 10。

一道冷鋒於本月首日早上橫過本港，隨後的一股強烈冬季季候風影響廣東沿岸地區，並於月初為本港帶來顯著較涼的天氣。多雲及有幾陣雨的天氣持續影響本港，直至雲層於十二月八日及九日消散，天氣才轉為部分時間有陽光。

隨著熱帶風暴黑格比橫過南海，一道廣闊雲帶伸展及覆蓋廣東沿岸海域，並於十二月十至十二日為本港帶來多雲及有幾陣雨的天氣。同時受一股冬季季候風影響，本港天氣轉冷，氣溫逐漸下降。當一股乾燥內陸氣流抵達華南沿岸地區後，本港於十二月十三至十四日轉為陽光充沛。雖然本港於十二月十五日多雲，但隨後數天冬季季候風進一步增強，並為本港帶來較冷及乾燥的空氣。本港的相對濕度於十二月十七日下降至百分之三十以下。另一道雲帶於十二月十九日由南海北部移入內陸，並為本港帶來顯著降雨，午夜前氣溫下降至最低的 10.7 度，是本月的最低紀錄。

乾燥及潮濕氣流於下半月在華南沿岸持續交替。本港於十二月二十日至二十二日天晴乾燥之後，一股和暖及潮濕的氣流於隨後五天為本港帶來多雲及有幾陣雨的天氣。有雨的天氣持續至十二月二十八日早上，一股冬季季候風於當日稍後抵達本港，並帶來較乾燥的天氣。十二月二十九日早上天氣寒冷，而普遍晴朗、乾燥及清涼的天氣持續至月底。

本月有兩個熱帶氣旋影響南海及北太平洋西部。

本月沒有航機因惡劣天氣須轉飛其他地方。表 1.1 載列本月發出及取消各種警告/信號的詳情。

1. The Weather of December 2014

Affected by frequent replenishments of the winter monsoon, the weather of December 2014 was cooler than normal, with spells of cloudy and rainy weather. The mean temperature for the month was 16.3 degrees, 1.6 degrees below the normal figure of 17.9 degrees. The total duration of bright sunshine in the month was 115.3 hours, 33 percent below the normal figure of 172.2 hours. The monthly total rainfall was 44.7 millimetres, about 67 percent above the normal figure of 26.8 millimetres. The annual rainfall of 2014 was 2638.3 millimetres, about 10 percent above the normal of 2398.5 millimetres.

After the passage of a cold front early on 1 December, an intense winter monsoon swept through the coastal areas of Guangdong and brought appreciably cooler weather to Hong Kong in the early part of the month. Cloudy conditions prevailed with some rain patches before the weather turned sunnier following the dissipation of clouds on 8 and 9 December.

As Tropical Storm Hagupit made its way across the South China Sea, a broad band of clouds extended over the coastal waters of Guangdong and cloudy skies returned on 10 - 12 December with a few rain patches. Coupled with the arrival of a surge of the winter monsoon, the weather turned colder as temperatures fell progressively. As a dry continental air mass reached the south China coastal areas, the weather became sunny on 13 and 14 December. Despite a cloudy day on 15 December, further replenishments of the winter monsoon in the next few days brought even colder and drier air to Hong Kong. The relative humidity plunged below 30 percent on 17 December and temperatures fell to a minimum of 10.7 degrees, the lowest of the month, before midnight on 19 December as another cloud band moved in from the northern part of the South China Sea and brought significant rain to the territory.

The ebb and flow between dry and moist air masses across the south China coast continued in the latter part of the month. Following three days of fine and dry weather on 20 - 22 December, the return of moist and milder air mass brought the clouds and rain patches back in the next five days. The rain patches lasted till the morning of 28 December before the arrival of a surge of the winter monsoon later that day brought drier conditions to Hong Kong. Following a cold morning on 29 December, the weather remained generally fine, dry and cool towards the end of the month.

Two tropical cyclones occurred over the South China Sea and the western North Pacific in the month.

During the month, no aircraft was diverted due to adverse weather. Details of the issuance and cancellation of various warnings/signals in the month are summarized in Table 1.1.

表 1.1 二零一四年十二月發出的警告及信號
Table 1.1 Warnings and Signals issued in December 2014

強烈季候風信號

Strong Monsoon Signal

開始時間 Beginning Time		終結時間 Ending Time	
日/月 day/month	時 hour	日/月 day/month	時 hour
1/12	0345	2/12	0745
4/12	0315	4/12	1500
6/12	2245	7/12	0600
8/12	2315	9/12	0845
16/12	0500	17/12	1145

火災危險警告

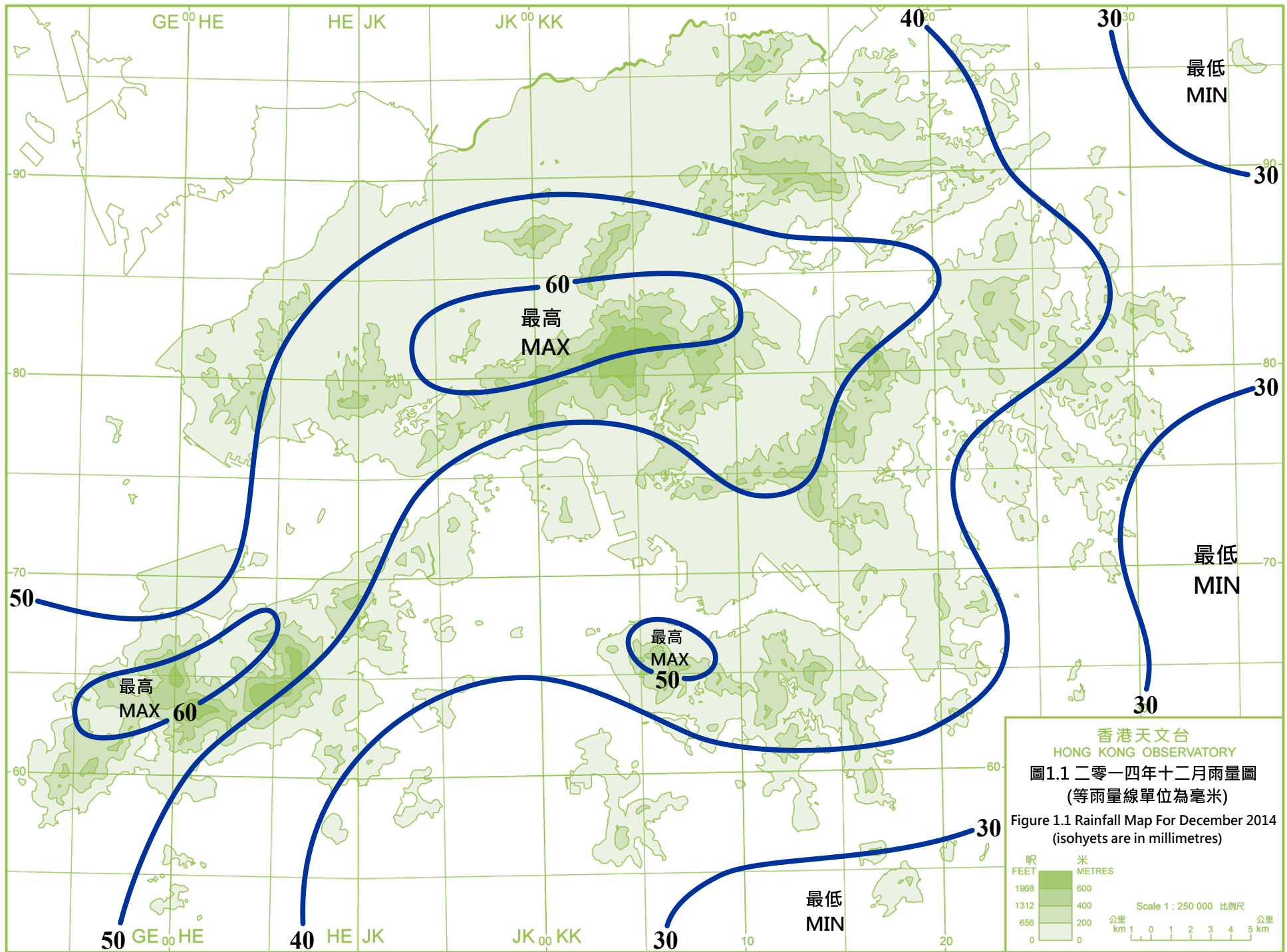
Fire Danger Warnings

顏色 Colour	開始時間 Beginning Time		終結時間 Ending Time	
	日/月 day/month	時 hour	日/月 day/month	時 hour
黃色 Yellow	6/12	1105	6/12	1800
紅色 Red	12/12	0600	14/12	2300
紅色 Red	16/12	0600	18/12	1800
黃色 Yellow	20/12	0600	21/12	0600
紅色 Red	21/12	0600	22/12	1800
紅色 Red	29/12	0600	29/12	2145

寒冷天氣警告

Cold Weather Warning

開始時間 Beginning Time		終結時間 Ending Time	
日/月 day/month	時 hour	日/月 day/month	時 hour
3/12	1620	5/12	1145
13/12	0425	13/12	1145
16/12	1620	20/12	1030
21/12	1620	22/12	1145
28/12	1620	30/12	1130
31/12	1620	2/1	0600



香港天文台
HONG KONG OBSERVATORY
圖1.1 二零一四年十二月雨量圖
(等雨量線單位為毫米)
Figure 1.1 Rainfall Map For December 2014
(isohyets are in millimetres)

呎 FEET	米 METRES
1968	600
1312	400
656	200
0	0

Scale 1 : 250 000 比例尺
公里 km 1 0 1 2 3 4 5 km

2.1 二零一四年十二月的熱帶氣旋概述

二零一四年十二月在北太平洋西部及南海區域出現了兩個熱帶氣旋。

熱帶低氣壓黑格比於十二月一日早上在關島之東南約1 580公里的北太平洋西部上形成，向西北偏西移動，當日下午發展為熱帶風暴。隨後數天黑格比繼續增強，於十二月四日凌晨發展為超強颱風，在最高強度時中心附近最高持續風速估計為每小時250公里。隨後兩天黑格比轉向偏西方向移動和逐步減弱。十二月七日黑格比橫過菲律賓中部，翌日減弱為熱帶風暴。十二月九日黑格比進入南海中部後繼續採取偏西路徑移動，並於十二月十日晚上在南沙島之東北偏北約 370 公里處再度增強為強烈熱帶風暴。隨後黑格比轉向西南偏西移動和逐漸減弱，最後於十二月十二日早上靠近越南南部海岸時減弱為一個低壓區。

根據報章報導，黑格比吹襲菲律賓期間造成至少27人死亡，逾100萬人需要撤離家園，多處大規模停電，海空交通大受影響。

熱帶低氣壓薔薇於十二月二十七日晚上在馬尼拉之東南約 1 350 公里的北太平洋西部上形成，大致向西北偏西移動，橫過菲律賓南部，於十二月二十九日增強為熱帶風暴，達到其最高強度，中心附近最高持續風速估計為每小時75公里。十二月三十日薔薇向西南方漂移，翌日在蘇祿海減弱為一個低壓區。

根據報章報導，薔薇吹襲菲律賓期間造成至少21人死亡。

2.1 Overview of Tropical Cyclones in December 2014

Two tropical cyclones occurred over the western North Pacific and the South China Sea in December 2014.

Hagupit formed as a tropical depression over the western North Pacific about 1 580 km southeast of Guam early on 1 December. It moved west-northwestwards, intensifying into a tropical storm that afternoon. It continued to intensify in the next few days and developed into a super typhoon in the small hours of 4 December, with an estimated sustained winds of 250 km/h near its centre at peak intensity. Hagupit turned westwards in the next two days and gradually weakened. It moved across the central part of the Philippines on 7 December and became a tropical storm the next day. Entering the central part of the South China Sea on 9 December, it continued on a westward track and re-intensified into a severe tropical storm about 370 km north-northeast of Nansha on the night of 10 December. Moving west-southwestwards and weakening gradually, Hagupit finally degenerated into an area of low pressure as it approached the coast of southern Vietnam on the morning of 12 December.

According to press reports, at least 27 people were killed and over a million people had to be evacuated in the Philippines during the passage of Hagupit. There were also reports of widespread power outages and disruption in sea and air traffic.

Jangmi formed as a tropical depression over the western North Pacific about 1 350 km southeast of Manila on the night of 27 December and generally followed a west-northwesterly track. Moving across the southern part of the Philippines, Jangmi intensified into a tropical storm on 29 December and reached its peak intensity with an estimated sustained winds of 75 km/h near its centre. It drifted southwestwards on 30 December and weakened into an area of low pressure over the Sulu Sea the next day

According to press reports, at least 21 people were killed in the Philippines during the passage of Jangmi.

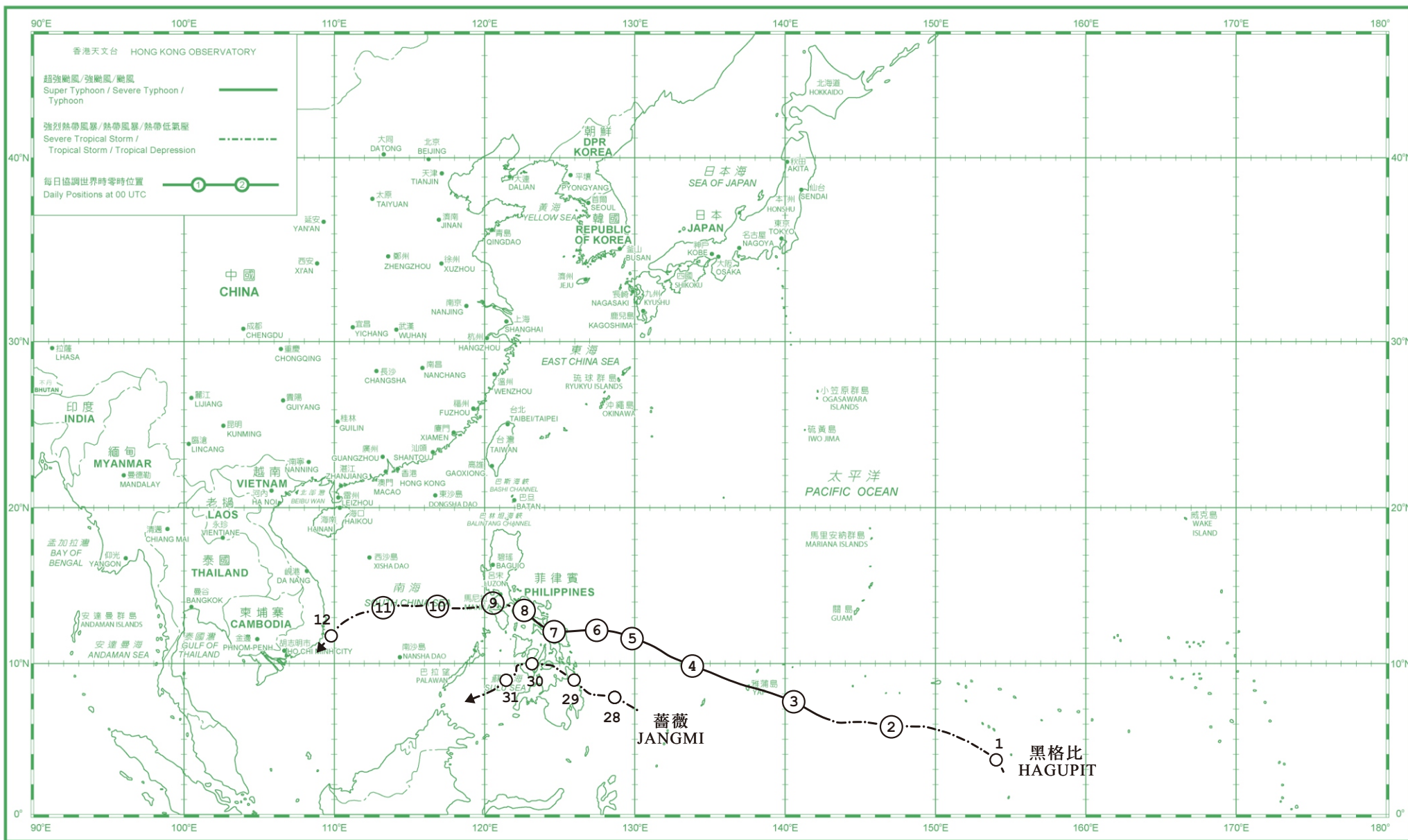









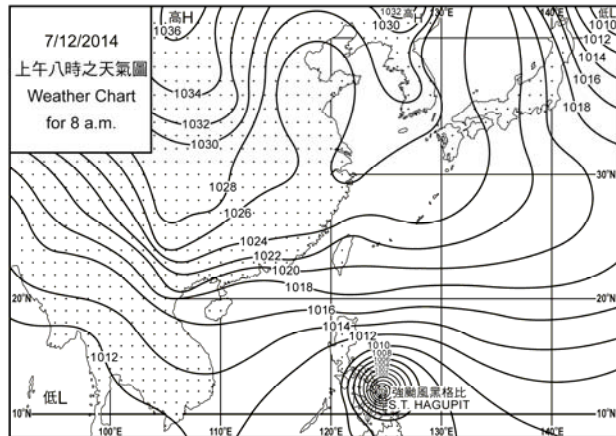
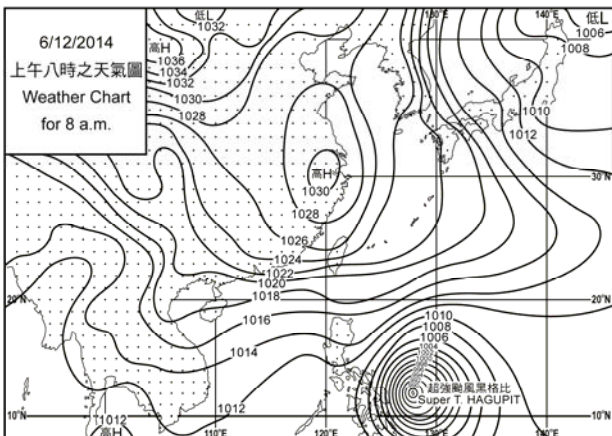
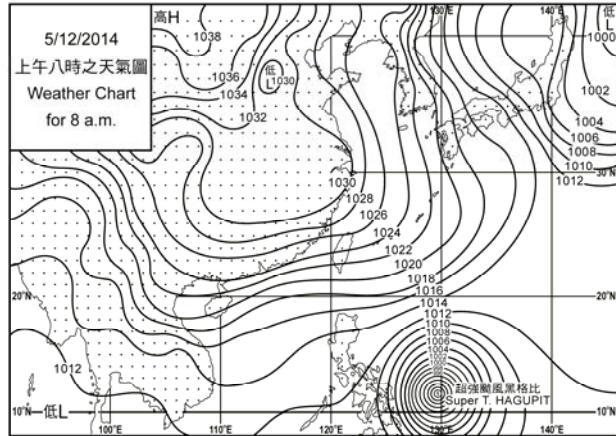
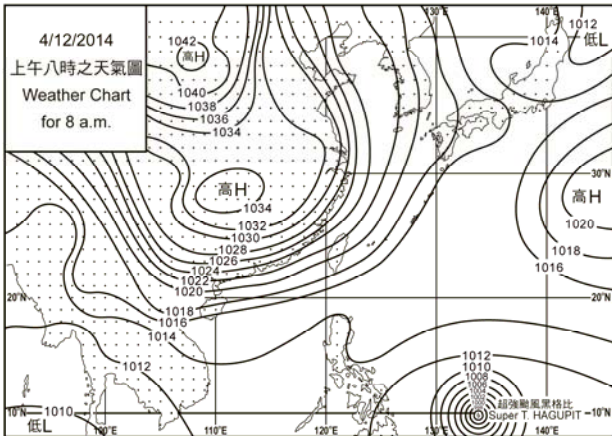
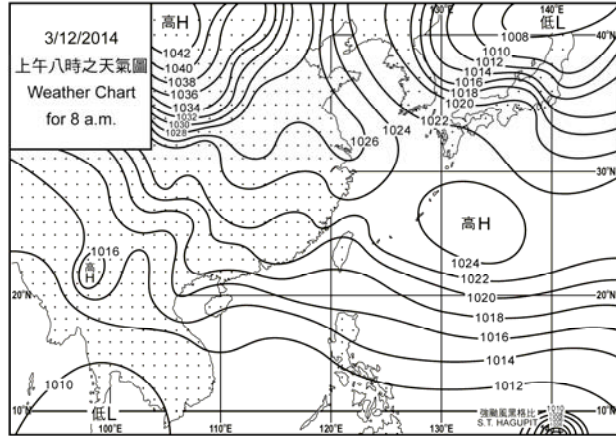
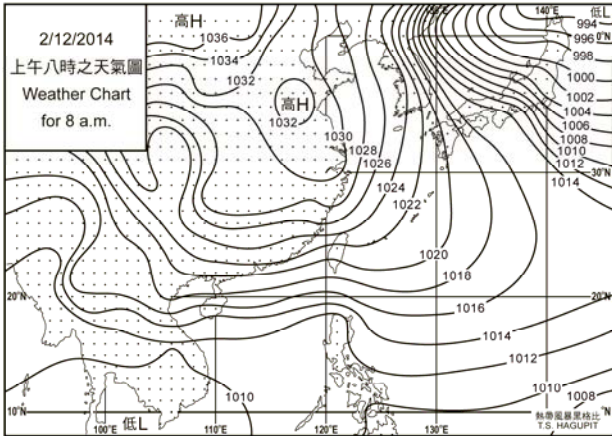
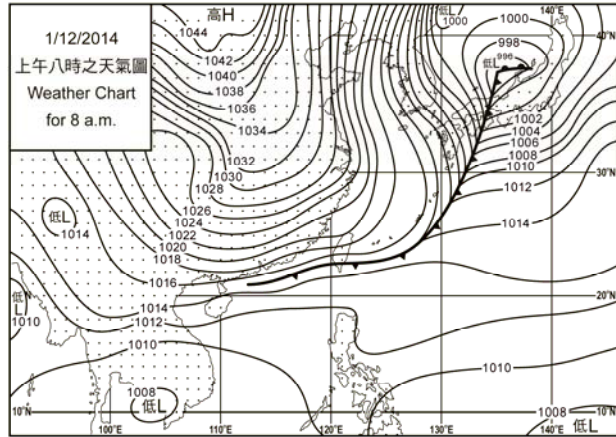


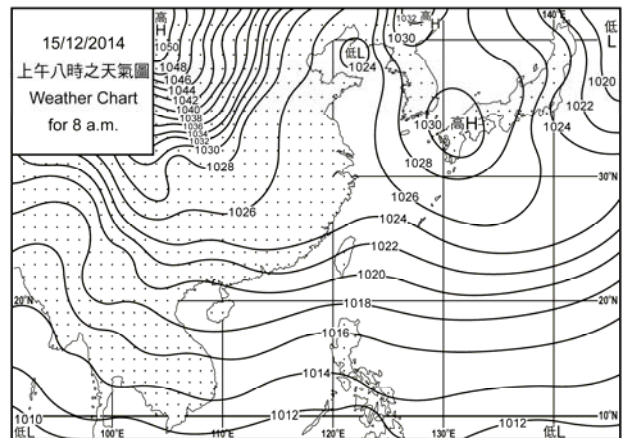
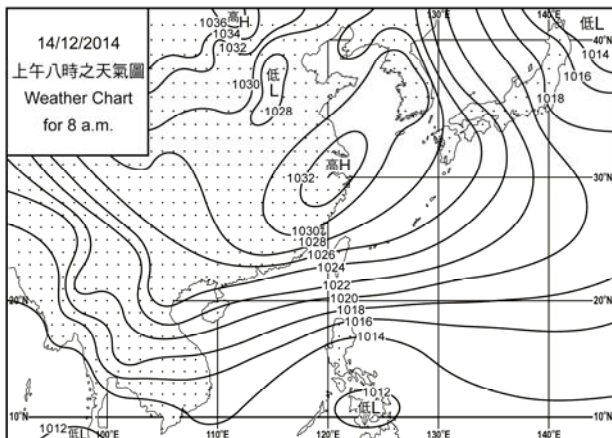
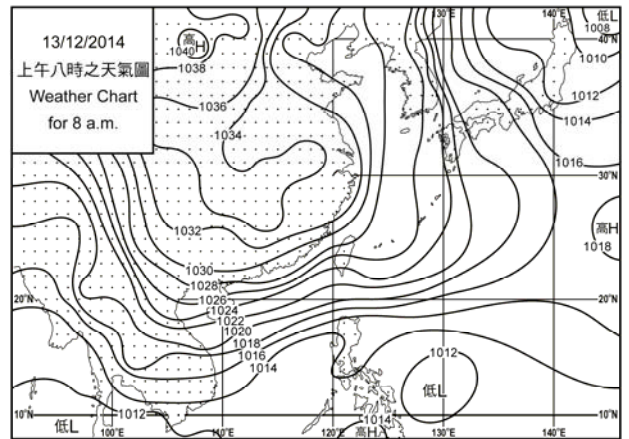
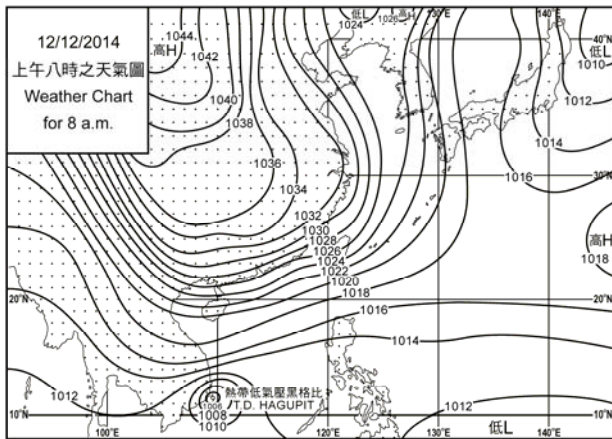
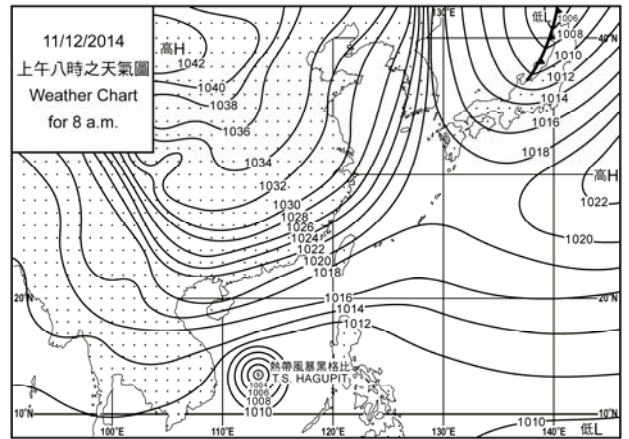
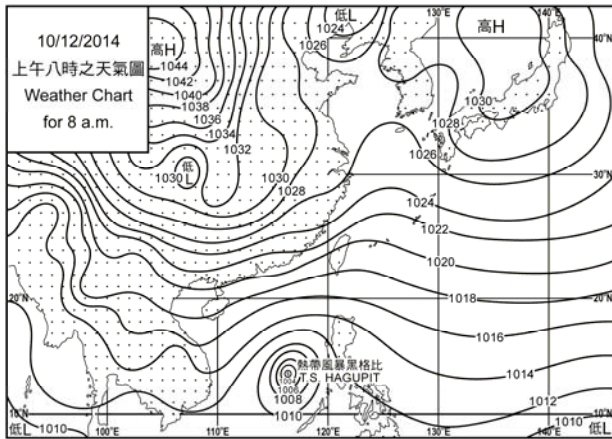
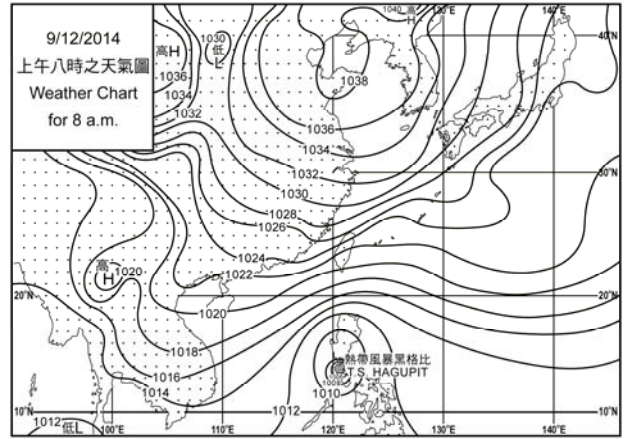
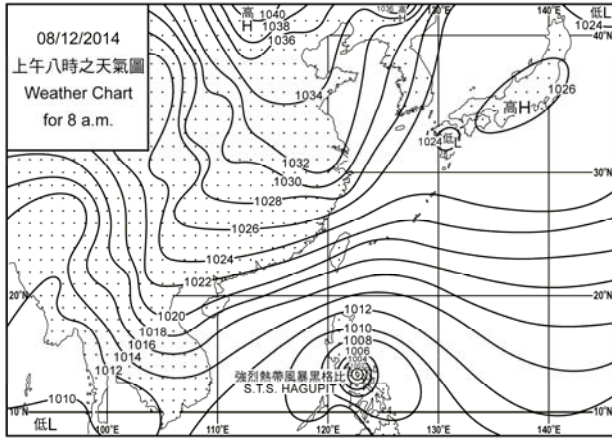
圖 2.1.1 二零一四年十二月的熱帶氣旋路徑圖

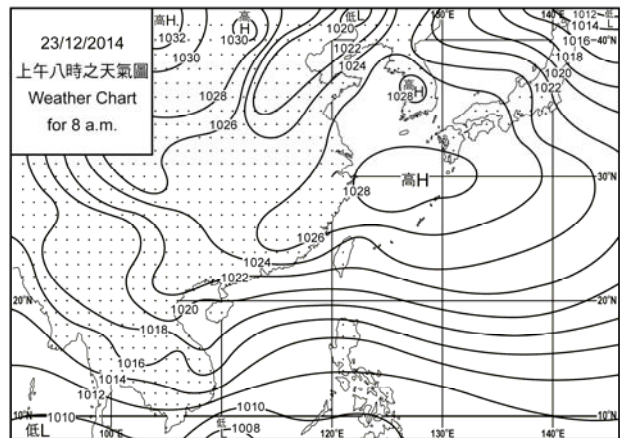
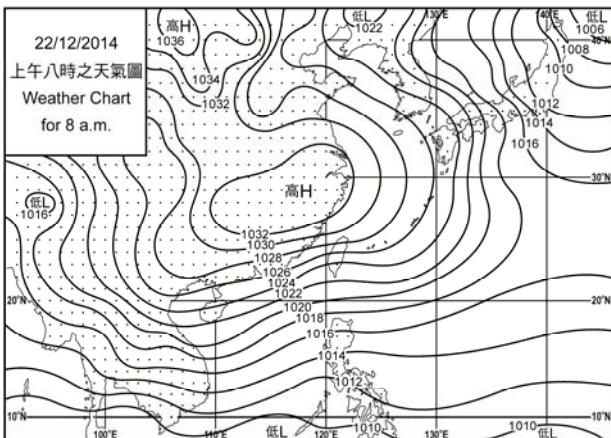
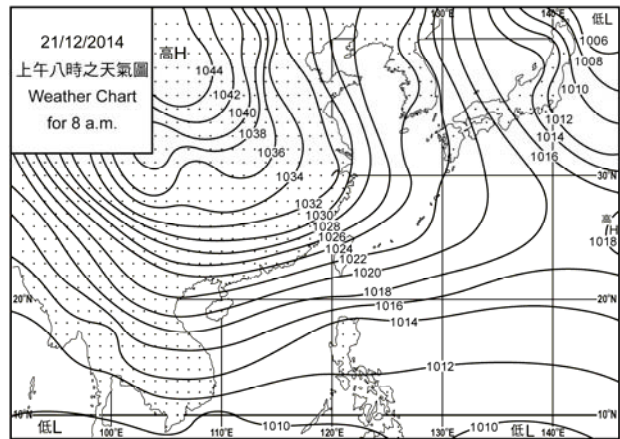
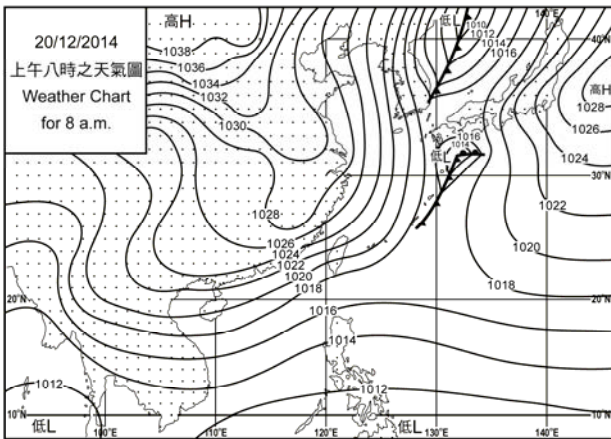
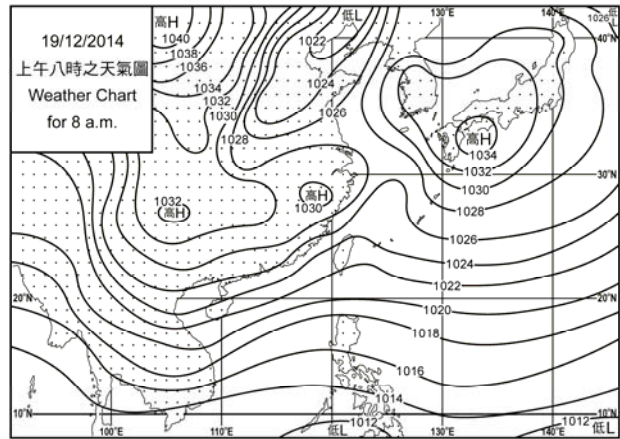
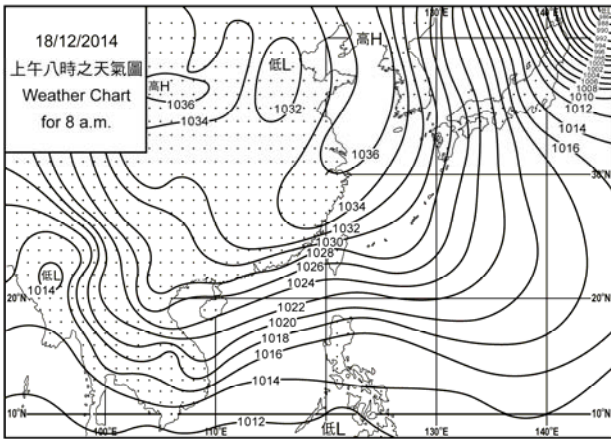
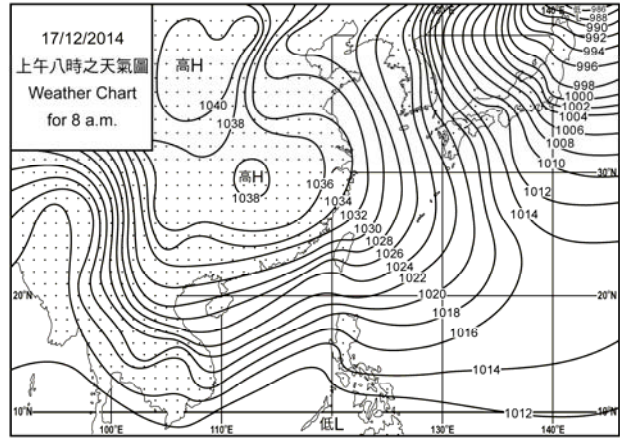
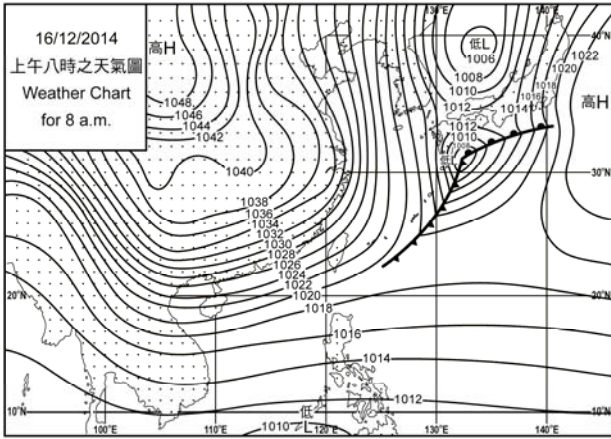
Figure 2.1.1 Track of tropical cyclones in December 2014

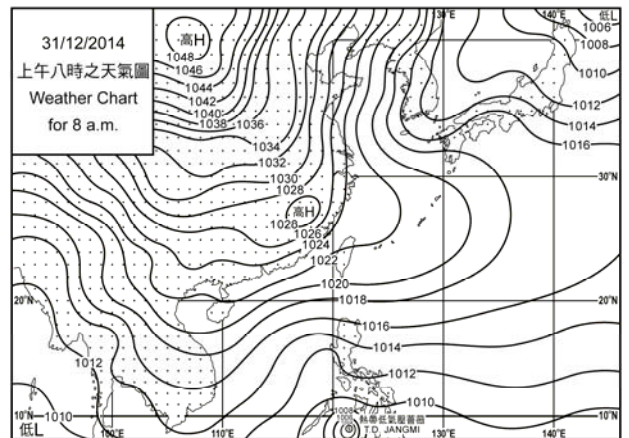
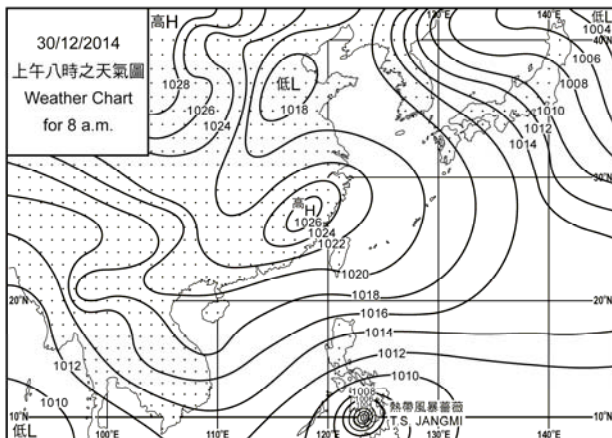
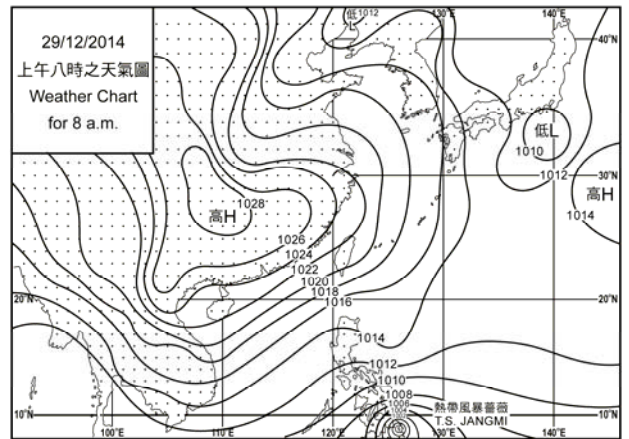
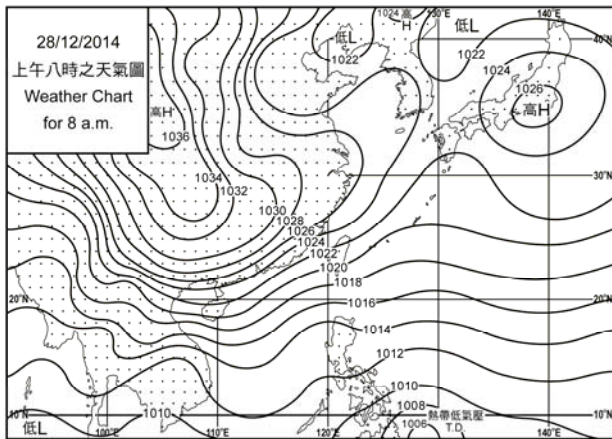
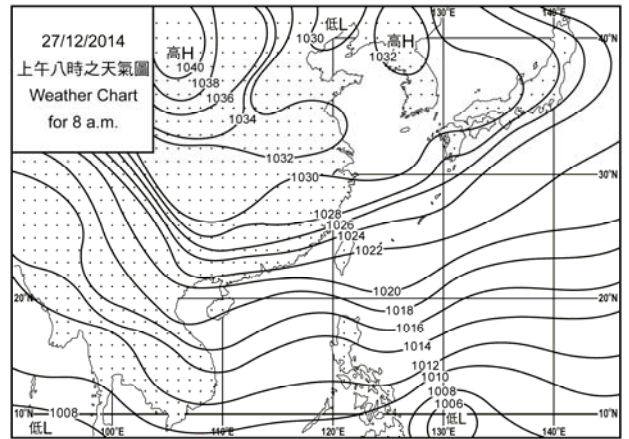
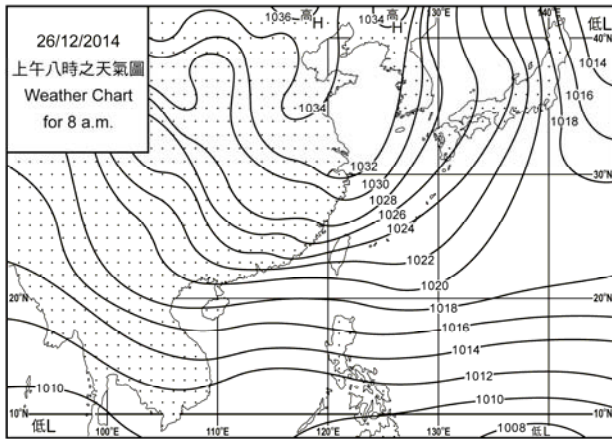
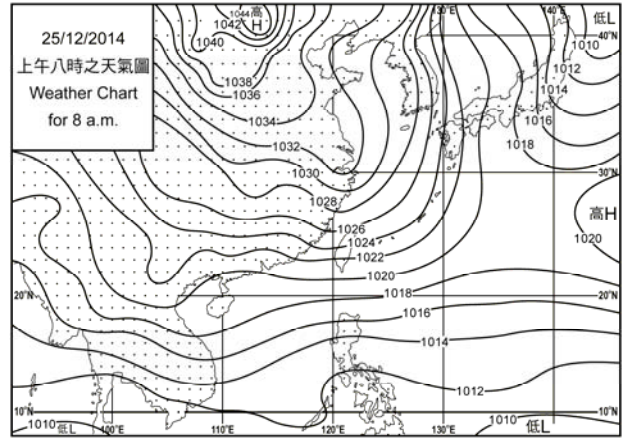
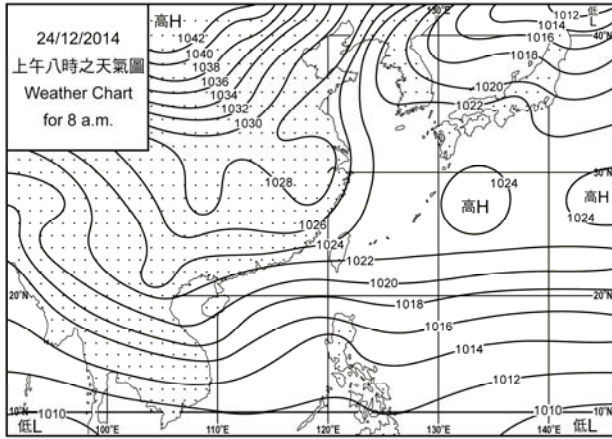
3. 二零一四年十二月每日天氣圖 3. Daily Weather Maps for December 2014

-  等壓線 Isobar (hPa)
-  冷鋒 Cold Front
-  暖鋒 Warm Front
-  錮囚鋒 Occlusion
-  靜止鋒 Stationary Front
-  消散中的冷鋒
-  Dissipating Cold Front
-  槽軸〔線〕 Axis of Trough
-  熱帶氣旋中心
Centre of Tropical Cyclone









4.1.1 二零一四年十二月香港氣象觀測摘錄(一)

4.1.1 Extract of Meteorological Observations in Hong Kong (Part 1), December 2014

日期 Date	平均氣壓 Mean Pressure	氣 溫 Air Temperature			平均 露點溫度 Mean Dew Point Temperature	平均 相對濕度 Mean Relative Humidity	平均雲量 Mean Amount of Cloud	總雨量 Total Rainfall
		最高 Maximum	平均 Mean	最低 Minimum				
十二月 December	百帕斯卡 hPa	°C	°C	°C	°C	%	%	毫米 mm
1	1016.3	23.9	19.7	15.5	15.7	78	88	3.1
2	1019.5	17.6	16.4	14.5	13.9	86	88	4.5
3	1017.4	19.3	18.3	16.7	16.0	86	88	1.7
4	1020.9	18.7	14.8	13.5	11.3	80	94	5.4
5	1022.3	16.8	15.1	12.9	8.5	65	83	0.5
6	1020.1	18.8	17.6	15.9	11.9	69	85	Tr
7	1019.3	18.7	17.8	17.0	11.7	68	88	0.1
8	1020.5	20.7	18.3	15.7	12.8	70	73	0.1
9	1021.5	20.8	19.4	17.6	13.7	70	51	-
10	1019.5	21.0	19.6	17.9	15.6	78	88	2.1
11	1019.6	21.5	19.5	17.7	12.0	62	89	Tr
12	1024.2	17.7	15.5	14.4	5.8	53	85	-
13	1025.6	17.6	14.6	12.1	4.8	52	41	-
14	1023.5	18.9	16.0	13.3	8.6	62	29	-
15	1020.9	20.1	18.6	17.0	12.0	66	84	-
16	1024.6	19.0	16.8	13.9	4.7	46	43	-
17	1027.1	15.2	13.3	10.8	-4.3	29	21	-
18	1026.4	15.8	14.0	11.9	2.5	47	80	0.1
19	1024.0	14.7	13.0	10.7	10.3	84	90	14.3
20	1020.8	17.7	14.7	10.8	8.2	66	39	0.2
21	1023.2	18.8	16.3	13.5	7.3	57	33	-
22	1024.3	15.5	13.6	10.9	3.8	52	44	-
23	1021.7	16.3	15.4	14.5	9.3	67	90	Tr
24	1021.4	21.4	18.7	15.8	13.6	73	88	-
25	1020.8	19.1	16.9	15.3	12.8	78	94	6.7
26	1020.7	17.0	16.2	15.0	14.1	88	100	2.2
27	1021.6	17.7	16.6	15.3	13.5	82	95	0.5
28	1022.6	16.1	14.5	12.3	11.5	83	72	3.2
29	1020.6	17.9	14.0	11.0	6.3	61	10	-
30	1019.8	18.4	14.9	12.8	8.1	65	9	-
31	1021.7	20.4	16.4	13.2	9.9	67	19	-
平均/總值 Mean/Total	1021.7	18.5	16.3	14.2	9.9	67	67	44.7
正常* Normal*	1020.5	20.2	17.9	15.9	11.9	69	52	26.8
觀測站 Station	天文台 Hong Kong Observatory							

天文台於十二月一日 2 時 44 分錄得本月最低氣壓 1013.1 百帕斯卡。

The minimum pressure recorded at the Hong Kong Observatory was 1013.1 hectopascals at 0244 HKT on 1 December.

天文台於十二月一日 0 時 1 分錄得本月最高氣溫 23.9 °C。

The maximum air temperature recorded at the Hong Kong Observatory was 23.9 °C at 0001 HKT on 1 December.

天文台於十二月十九日 23 時 32 分錄得本月最低氣溫 10.7 °C。

The minimum air temperature recorded at the Hong Kong Observatory was 10.7 °C at 2332 HKT on 19 December.

京士柏於十二月四日 0 時 56 分錄得本月最高瞬時降雨率 61 毫米/小時。

The maximum instantaneous rate of rainfall recorded at King's Park was 61 millimetres per hour at 0056 HKT on 4 December.

* 1981-2010 氣候平均值 (除特別列明外) (<http://www.hko.gov.hk/wxinfo/climat/normal/cnormal12.htm>)

* 1981-2010 Climatological normal, unless otherwise specified (<http://www.hko.gov.hk/wxinfo/climat/normal/enormal12.htm>)

Tr - 微量 (降雨量少於 0.05 毫米)

Tr - Trace of rainfall (amount less than 0.05 mm)

4.1.2 二零一四年十二月香港氣象觀測摘錄(二)

4.1.2 Extract of Meteorological Observations in Hong Kong (Part 2), December 2014

日期 Date	出現低能見度的時數# Number of hours of Reduced Visibility#	總日照 Total Bright Sunshine	每日太陽總輻射 Daily Global Solar Radiation	總蒸發量 Total Evaporation	盛行風向 Prevailing Wind Direction	平均風速 Mean Wind Speed
十二月 December	小時 hours	小時 hours	兆焦耳/米 ² MJ/m ²	毫米 mm	度 degrees	公里/小時 km/h
1	0	-	2.31	2.0	030	37.3
2	10	-	2.47	0.6	070	35.0
3	13	-	2.47	1.8	090	35.9
4	0	-	4.42	1.7	030	42.4
5	0	0.5	6.90	2.0	040	26.8
6	0	2.3	9.93	3.0	090	40.1
7	0	-	4.08	1.8	090	34.4
8	9	5.3	12.97	2.5	030	30.5
9	0	9.3	15.62	2.9	080	38.7
10	11	-	4.86	2.4	050	21.7
11	12	0.5	8.78	4.3	020	26.2
12	2	1.7	9.74	4.0	010	39.3
13	0	9.5	15.73	3.9	020	25.8
14	0	9.5	15.59	3.6	080	25.7
15	4	0.1	5.28	2.9	050	22.0
16	5	8.5	14.62	6.7	020	44.5
17	0	9.3	16.85	5.7	020	39.8
18	0	0.3	6.68	3.9	030	27.8
19	1	-	2.87	1.3	020	29.3
20	0	9.3	16.79	2.7	020	26.6
21	0	8.1	14.96	5.1	020	36.2
22	0	9.1	15.30	5.1	060	31.4
23	8	0.1	3.67	1.2	030	25.8
24	17	1.2	9.18	0.8	020	17.8
25	0	-	4.13	1.3	060	39.9
26	1	-	3.15	0.1	070	42.2
27	3	-	2.99	3.0	060	30.2
28	2	2.3	8.17	1.5	010	26.1
29	8	9.4	17.51	2.4	020	21.3
30	2	9.5	17.60	2.6	020	14.3
31	7	9.5	16.11	3.0	050	10.5
平均/總值 Mean/Total	115	115.3	9.41	85.8	020	30.5
正常* Normal*	238.6 §	172.2	10.89	83.7	070	26.0
觀測站 Station	香港國際機場 Hong Kong International Airport	京士柏 King's Park			橫瀾島 Waglan Island	

橫瀾島於十二月四日 3 時 57 分錄得本月最高陣風 87 公里/小時，風向 030 度。

The maximum gust peak speed recorded at Waglan Island was 87 kilometres per hour from 030 degrees at 0357 HKT on 4 December.

低能見度是指能見度低於 8 公里，不包括出現霧、薄霧或降水。

- 在2004年及以前，香港國際機場的能見度讀數是基於專業氣象觀測員每小時的觀測數據。在2005年及以後，讀數是採用位於機場南跑道中間的能見度儀表在每小時前10分鐘的平均數據。這與使用儀器觀測來改進能見度評估的國際趨勢是一致的。

- 在2007年10月10日前曾出現於此摘錄內香港國際機場2005年及以後的低能見度時數資料乃基於專業氣象觀測員每小時的觀測數據。有關資料已於2007年10月10日起改為以機場南跑道中間之能見度儀表在每小時前10分鐘的平均數據計算。

Reduced visibility refers to visibility below 8 kilometres when there is no fog, mist, or precipitation.

- The visibility readings at the Hong Kong International Airport are based on hourly observations by professional meteorological observers in 2004 and before, and average readings over the 10-minute period before the clock hour of the visibility meter near the middle of the south runway from 2005 onwards. The change of the data source in 2005 is an improvement of the visibility assessment using instrumented observations following the international trend.

- Before 10 October 2007, the number of hours of reduced visibility at the Hong Kong International Airport in 2005 and thereafter displayed in this summary was based on hourly visibility observations by professional meteorological observers. Since 10 October 2007, the data have been revised using the average visibility readings over the 10-minute period before the clock hour, as recorded by the visibility meter near the middle of the south runway.

* 1981-2010 氣候平均值 (除特別列明外) (<http://www.hko.gov.hk/wxinfo/climat/normal/cnormal12.htm>)

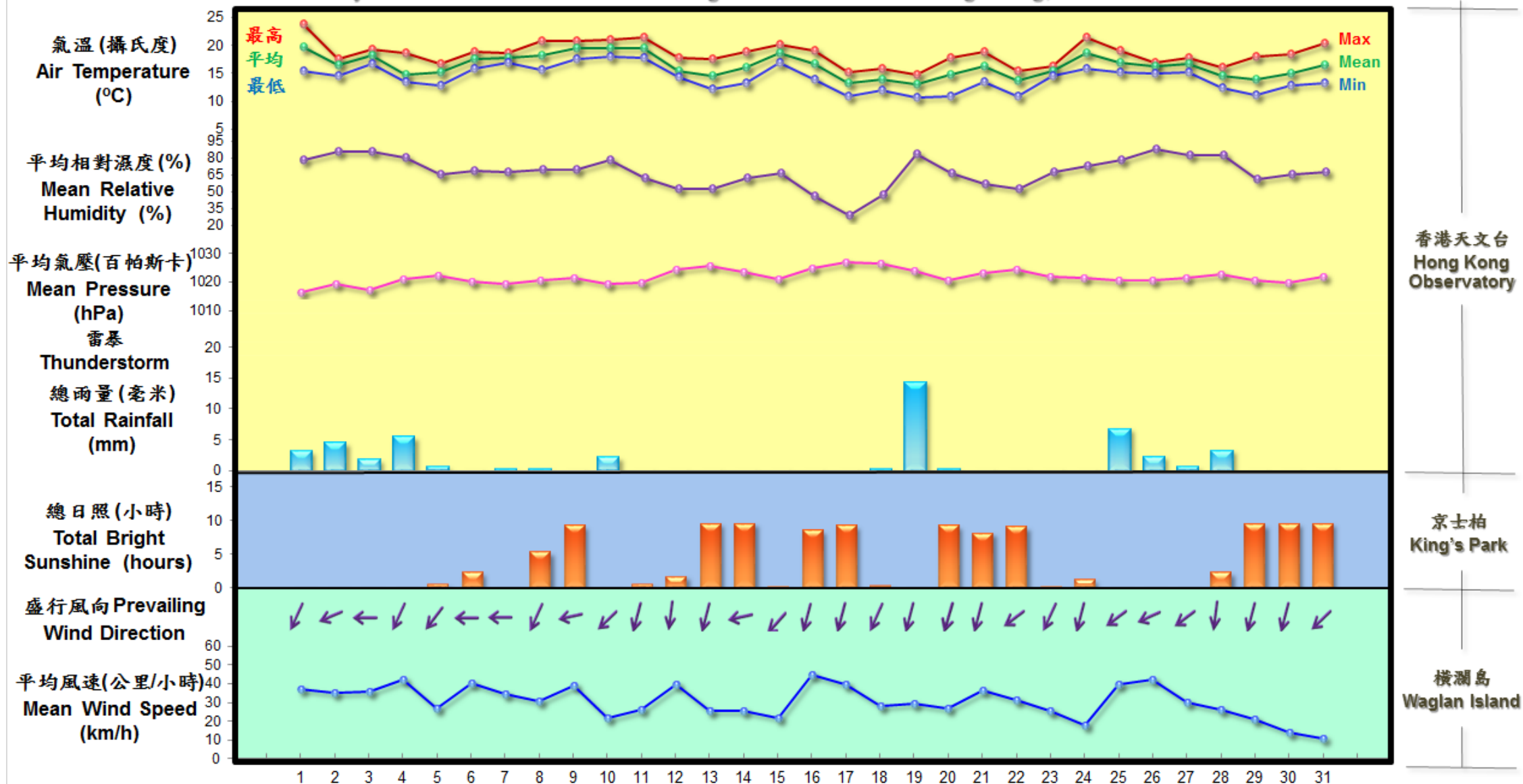
* 1981-2010 Climatological normal, unless otherwise specified (<http://www.hko.gov.hk/wxinfo/climat/normal/enormal12.htm>)

§ 1997-2013 平均值

§ 1997-2013 Mean value

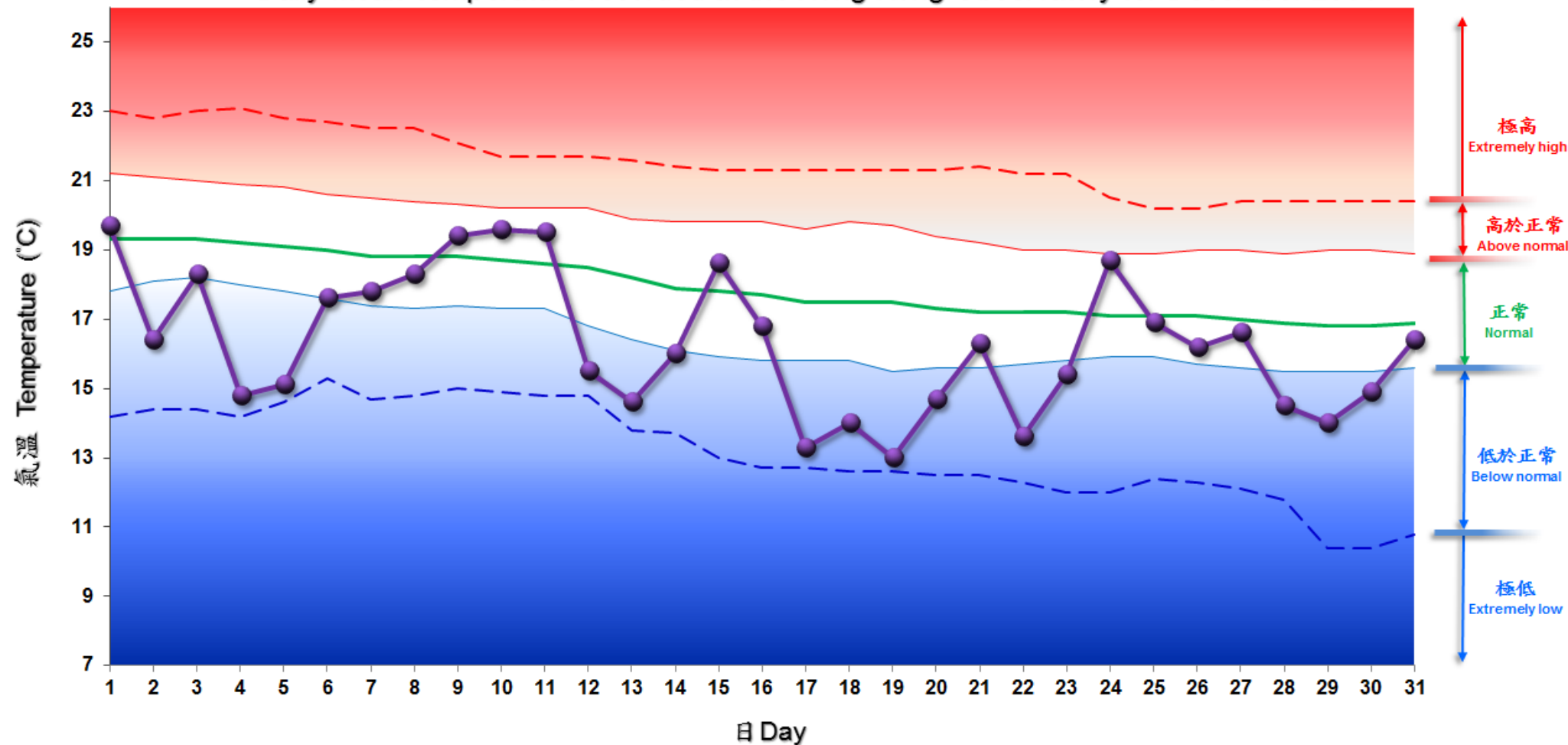
4.2 2014年12月部分香港氣象要素的每日記錄

4.2 Daily Values of Selected Meteorological Elements for Hong Kong, December 2014



4.3 2014年12月香港天文台錄得的日平均氣溫

4.3 Daily Mean Temperature recorded at the Hong Kong Observatory for December 2014



--- 第95百分位數 95th percentile
 --- 第75百分位數 75th percentile
 — 5天移動平均 Running 5-day average
 --- 第25百分位數 25th percentile
 --- 第5百分位數 5th percentile
 ● 日平均氣溫 Daily mean temperature

備註:
 極高: 高於第 95 百分位數
 高於正常: 介乎第 75 和第 95 百分位數之間
 正常: 介乎第 25 和第 75 百分位數之間
 低於正常: 介乎第 5 和第 25 百分位數之間
 極低: 低於第 5 百分位數
 百分位數值及 5 天移動平均值是基於 1981 至 2010 年的數據計算所得

Remarks:
 Extremely high: above 95th percentile
 Above normal: between 75th and 95th percentile
 Normal: between 25th and 75th percentile
 Below normal: between 5th and 25th percentile
 Extremely low: below 5th percentile
 Percentile and 5-day running average values are computed based on the data from 1981 to 2010

5. 二零一四年天氣概況

全球天氣而言，根據世界氣象組織就 1 月至 10 月全球平均氣溫數據所作出的初步評估，2014 年可能是自 1850 年全球有記錄以來其中一個最炎熱的年份。此外，2014 年很多極端天氣事件肆虐全球多處地方，當中包括南非、澳洲及阿根廷的熱浪；美國中西部及密西西比河的異常寒冷天氣；日本北部及東部、美國水牛城及紐約的大雪；中國北部、巴西東部及中部部分地區、美國西部、澳洲昆士蘭及新南威爾斯省、南非西北省份的嚴重乾旱；英國、巴爾幹半島、法國、俄羅斯南部部分地區、南非部分地區、莫桑比克、摩洛哥、日本、尼泊爾、孟加拉北部、巴基斯坦及印度北部、阿根廷、巴拉圭及美國部分地區的洪澇及暴雨；菲律賓及中國海南省的超強颱風威馬遜；印度的特強氣旋風暴赫德赫德及尼洛法以及日本西部的颱風娜基莉及夏浪。5 月至 10 月赤道太平洋中部和東部的表面海水溫度持續高於正常，顯示厄爾尼諾現象已經形成。2014 年 9 月北極海冰最少面積為有記錄以來的第六低。

香港 2014 年的天氣整體上較正常溫暖。雖然 2 月、3 月及 12 月較清涼，但 6 月至 9 月的天氣異常炎熱，而 10 月和 11 月亦非常溫暖。全年而言，平均氣溫為 23.5 度，比 1981-2010 年氣候正常值^[1]高 0.2 度(或較 1961-1990 年氣候正常值的 23.0 度高 0.5 度)，是有記錄以來第九高。在極端氣溫方面，2014 年酷熱天氣日數^[2] 共有 33 天，熱夜日數^[3] 共有 34 天，分別比 1981-2010 年氣候正常值多約 23 天及 16 天，兩者皆為自 1884 年有記錄以來的第二高。全年寒冷日數^[4]共有 21 天，比正常多出 4 天。天文台於 2014 年錄得的最高氣溫為 8 月 1 日的 34.6 度，而最低氣溫為 2 月 12 日的 7.3 度。

受到 3 月、5 月和 8 月的不穩定天氣及遠高於正常的降雨量所影響，2014 年是一個多雨及多雷暴的年份。全年總雨量為 2638.3 毫米，較 1981-2010 年氣候正常值 2398.5 毫米多約百分之 10 (較 1961-1990 年氣候正常值多約百分之 19)。天文台錄得的雷暴日數共 59 天，為自 1947 年以來的最高紀錄，破了之前在 1997 及 2013 年所創的 53 天舊紀錄。受低壓槽影響，本港於 3 月 30 日和 5 月 8 日出現滂沱大雨及強烈雷暴，天文台需要發出黑色暴雨警告。3 月 30 日的強烈雷暴更為本港帶來廣泛冰雹及猛烈狂風。

2014 年共有 24 個熱帶氣旋影響北太平洋西部及南海，比長期平均(1961-2010)的約 30 個為少。全年有 11 個熱帶氣旋達到颱風或以上強度^[5]，低於長期平均的約 15 個。年內有 4 個熱帶氣旋引致香港天文台發出熱帶氣旋警告信號，低於長期年平均的約 6 個。其中， 颱風海鷗在 9 月襲港期間需要發出八號烈風或暴風信號。

至於本年各月份的詳細天氣概況，可參考「每月天氣摘要」網頁：

http://www.weather.gov.hk/wxinfo/pastwx/mws/mwsc_uc.htm

於 2014 年在本港發生的重要天氣事件如下：

三月及五月的黑色暴雨

一道活躍低壓槽於 3 月 30 日傍晚為本港帶來滂沱大雨及強烈雷暴。在 3 至 4 小時內，九龍及新界錄得超過 100 毫米雨量，元朗、屯門、荃灣及沙田的雨量更超過 150 毫米。天文台於 3 月 30 日下午九時至十時錄得的一小時雨量為 56 毫米，是自 1884 年有記錄以來 3 月份的最高紀錄。天文台於下午 8 時 40 分發出黑色暴雨警告，此乃自暴雨警告系統於 1992 年開始運作以來首個在 3 月份發出的黑色暴雨警告。在大雨期間，九龍及新界有多宗水浸報告，包括港鐵九龍塘站及黃大仙站。強烈雷暴亦為本港帶來廣泛冰雹及猛烈狂風。流浮山曾錄得高達每小時 130 公里的陣風，而葵涌貨櫃碼頭有一疊貨櫃箱倒塌，引致一人受傷。

於 5 月 8 日晚上，一道活躍低壓槽橫過廣東沿岸，並為本港帶來廣泛大雨及狂風雷暴。天文台於當晚 10 時 30 分發出黑色暴雨警告，本港普遍錄得超過 70 毫米雨量。受華南沿岸地區附近的低壓槽影響，隨後數天的天氣持續不穩定及間中有大驟雨和狂風雷暴。其中 5 月 11 日新界北部的大雨尤其頻密，大埔、沙頭角及上水均錄得超過 200 毫米雨量。

異常高溫的夏季及秋季

受華南上空較正常強的副熱帶高壓脊及南海北部較正常溫暖的表面海水溫度影響，本港 6 月至 9 月的天氣異常炎熱。此外，由於大部分時間受到較弱的東北季候風所支配，10 月和 11 月顯著較正常溫暖。6 月至 11 月期間天文台錄得的平均氣溫為 27.6 度，是自 1884 年有記錄以來同期的最高紀錄。在單月平均氣溫方面，6 月份的 29.0 度、7 月份的 29.8 度及 9 月份的 29.0 度皆破了各自月份的最高月平均氣溫紀錄。

沒有熱帶氣旋形成的 8 月

沒有熱帶氣旋於 8 月份在北太平洋西部及南海形成，遠少於長期平均(1961-2010)的約六個。8 月份熱帶氣旋形成比正常少的主要原因是西南季候風顯著較弱，而較強及相對偏南的副熱帶高壓脊亦抑制了該區的熱帶氣旋形成。

附註：

- [1] 1961-1990 年、1971-2000 及 1981-2010 年氣候正常值，可參考：
http://www.weather.gov.hk/cis/normal_c.htm。除特別列明外，本文採用 1981-2010 氣候正常值。
- [2] 酷熱天氣指當日最高氣溫達 33.0 度或以上。
- [3] 熱夜天氣指當日最低氣溫在 28.0 度或以上。
- [4] 寒冷天氣指當日最低氣溫在 12.0 度或以下。
- [5] 熱帶氣旋分類資料可瀏覽 <http://www.hko.gov.hk/informtc/classc.htm>。

5. The Year's Weather – 2014

Globally, according to the World Meteorological Organizations preliminary assessment based on the global average temperature from January to October, 2014 is likely to be one of the hottest years since global records began in 1850. Moreover, notable extreme weather events wreaked havoc in many parts of the world in 2014, including heat waves in South Africa, Australia and Argentina, exceptional cold weather in the Mid-West and the Mississippi River of the United States, heavy snow in northern and eastern Japan, and Buffalo and New York of the United States, severe drought in northern China, parts of eastern and central Brazil, western United States, New South Wales and Queensland of Australia, and the North-West Province of South Africa, extreme rainfall and flooding in United Kingdom, Balkan Peninsula, France, parts of southern Russia, parts of South Africa, Mozambique, Morocco, Japan, Nepal, northern Bangladesh, northern Pakistan and India, Argentina, Paraguay, and parts of the United States, Super Typhoon Rammason in the Philippines and Hainan Province of China, Very Severe Cyclonic Storm Hud Hud and Nilfar in India as well as Typhoons Nakri and Halong in western Japan. Over the central and eastern equatorial Pacific, the sea surface temperature has remained above the normal range from May to October and an El Niño event has been established. The minimum Arctic sea ice extent in September 2014 was the sixth lowest on record.

In Hong Kong, the weather overall in 2014 was warmer than usual. Despite it was cooler in February, March and December, the weather was unusually hot from June to September and very warm in October and November. As for the whole year, the annual average temperature of 23.5 degrees was 0.2 degrees above the 1981-2010 normal^[1] (or 0.5 degrees above the 1961-1990 normal of 23.0 degrees), ranking the ninth highest on record. Regarding extreme temperatures, there were 33 Very Hot Days^[2] and 34 Hot Nights^[3] in 2014, about 23 and 16 days more than the 1981-2010 normal figures respectively and both ranking the second highest since record began in 1884. The number of Cold Days^[4] in the year was 21 days, four days above normal. In 2014, the maximum temperature recorded at the Hong Kong Observatory was 34.6 degrees on 1 August, and the minimum temperature recorded was 7.3 degrees on 12 February.

With unsettled weather and well above normal rainfall in March, May and August, 2014 was also a wet and thundery year. The annual total rainfall was 2638.3 millimetres, a surplus of 10 percent comparing to the 1981-2010 normal of 2398.5 millimetres (and about 19 percent above the 1961-1990 normal). The total number of days with thunderstorms reported at the Hong Kong Observatory was 59 days. It is the highest since records began in 1947, shattering the previous record of 53 days set in 1997 and 2013. Affected by troughs of low pressure, there were torrential rain and intense thunderstorms in Hong Kong on 30 March and

8 May, requiring the Observatory to issue the Black Rainstorm Warning. The Intense thunderstorms on 30 March also brought widespread hail and severe squalls to the territory.

A total of 24 tropical cyclones occurred over the western North Pacific and the South China Sea in 2014, less than the long term (1961-2010) average of around 30. There were 11 tropical cyclones reaching typhoon intensity^[5] or above during the year, below the long term average of about 15. In Hong Kong, four tropical cyclones necessitated the issuance of local tropical cyclone warning signals, lower than the long term average of about six in a year. The No. 8 Gale or Storm Signal was issued during the passage of Typhoon Kalmaegi in September.

Detailed descriptions of the weather for individual months are available in the Monthly Weather Summary webpage from the following URL: <http://www.hko.gov.hk/wxinfo/pastwx/mws.htm>

Some significant weather events in Hong Kong in 2014 are highlighted below:

Black Rainstorms in March and May

On 30 March, an active trough of low pressure brought heavy rain and intense thunderstorms to Hong Kong in the evening. Over a period of 3 to 4 hours, more than 100 millimetres of rainfall were recorded in Kowloon and the New Territories. Rainfall in Yuen Long, Tuen Mun, Tsuen Wan and Shatin exceeded 150 millimetres. The hourly rainfall of 56 millimetres recorded at the Hong Kong Observatory between 9 and 10 p.m. on 30 March was the highest in March since record began in 1884. The Black Rainstorm Warning was issued at 8:40 p.m., the first time in March since the Rainstorm Warning System commenced operation in 1992. There were flooding reports in Kowloon and the New Territories including the MTR stations at Kowloon Tong and Wong Tai Sin. Intense thunderstorms also brought widespread hail and severe squalls to the territory. A maximum gust exceeding 130 kilometres per hour was reported at Lau Fau Shan, and one person was injured as stacked containers at the Kwai Chung Container Terminals toppled over.

On 8 May, an active trough of low pressure swept across the coast of Guangdong at night and brought widespread heavy rain and squally thunderstorms to Hong Kong. The Black Rainstorm Warning was issued at 10:30 p.m. and more than 70 millimetres of rainfall were generally recorded over the territory. Affected by troughs of low pressure near the south China coastal areas, the weather remained unsettled with outbreaks of heavy showers and squally thunderstorms in the next few days. The rain was particularly heavy and persistent over the northern part of the New Territories on 11 May with more than 200 millimetres of rainfall recorded over Tai Po, Sha Tau Kok and Sheung Shui

Unusually High Temperatures in Summer and Autumn

Affected by the stronger than normal subtropical ridge over southern China and the higher than normal sea surface temperature in the northern part of the South China Sea, the weather in Hong Kong was unusually hot from June to September this year. Moreover, dominated by relatively weak northeast monsoon for most of the time, October and November were also significantly warmer than usual. The mean temperature for June to November recorded at the Hong Kong Observatory in 2014 was 27.6 degrees, the highest for the same period since record began in 1884. In particular, the monthly mean temperatures of 29.0 degrees, 29.8 degrees and 29.0 degrees respectively for June, July and September also emerged as the record high for individual months.

No tropical cyclone formed in August

There was no tropical cyclones formed over the western North Pacific and the South China Sea in August, much less than the long term (1961-2010) average of about six. The lower than normal tropical cyclone activity is mainly attributed to the significantly weaker southwest monsoon and the stronger and relatively south subtropical ridge which suppressed the development of tropical cyclones over the region.

Note :

- [1] Climatological normals for the reference period of 1961-1990, 1971-2000 and 1981-2010 are available at : http://www.weather.gov.hk/cis/normal_e.htm. Climatological normals of 1981-2010 are referenced in the text unless otherwise stated.
- [2] 'Very Hot Day' refers to the condition with the daily maximum temperature equal to or higher than 33.0 degrees.
- [3] 'Hot Night' refers to the condition with the daily minimum temperature equal to or higher than 28.0 degrees.
- [4] 'Cold Day' refers to the condition with the daily minimum temperature equal to or lower than 12.0 degrees.
- [5] Information on the classification of Tropical Cyclones is available at: <http://www.hko.gov.hk/informtc/class.htm>.

表 5.1.1 二零一四年香港氣象觀測摘要(一)

Table 5.1.1 Summary of Meteorological Observations in Hong Kong (Part1), 2014

月份 Month	氣 溫 Air Temperature				平均 露點溫度 Mean Dew Point Temperature	平均 相對濕度 Mean Relative Humidity	平均雲量 Mean Amount of Cloud	總雨量 Total Rainfall
	平均氣壓 Mean Pressure	平均日最高 Mean Daily Maximum	平均 Mean	平均日最低 Mean Daily Minimum				
	百帕斯卡 hPa	°C	°C	°C				
一月 January	1021.3	19.2	16.3	14.1	9.9	67	32	Tr
二月 February	1017.7	17.9	15.5	13.5	12.3	82	73	39.5
三月 March	1017.1	20.9	18.7	17.0	15.7	83	77	207.6
四月 April	1013.4	24.9	22.6	21.0	20.0	86	72	132.4
五月 May	1009.5	28.6	26.4	24.6	23.7	86	82	687.3
六月 June	1003.8	31.5	29.0	27.0	25.0	80	77	436.6
七月 July	1005.3	32.6	29.8	27.6	25.9	80	70	260.5
八月 August	1007.0	32.0	29.0	26.8	25.3	81	67	548.2
九月 September	1008.4	32.0	29.0	27.0	24.5	77	57	140.6
十月 October	1014.6	28.9	26.2	24.3	20.4	71	54	109.8
十一月 November	1017.0	24.6	22.6	21.2	18.5	78	63	31.1
十二月 December	1021.7	18.5	16.3	14.2	9.9	67	67	44.7
平均/總值 Mean/Total	1013.1	26.0	23.5	21.5	19.3	78	66	2638.3
正常* Normal*	1012.9	25.6	23.3	21.4	19.0	78	68	2398.5
觀測站 Station	天文台 Hong Kong Observatory							

天文台於七月二十三日 16 時 50 分錄得本年最低氣壓 997.2 百帕斯卡。

The annual minimum pressure recorded at the Hong Kong Observatory was 997.2 hectopascals at 1650 HKT on 23 July.

天文台於八月一日 15 時 19 分錄得本年最高氣溫 34.6 °C。

The annual maximum air temperature recorded at the Hong Kong Observatory was 34.6 °C at 1519 HKT on 1 August.

天文台於二月十二日 7 時 5 分錄得本年最低氣溫 7.3 °C。

The annual minimum air temperature recorded at the Hong Kong Observatory was 7.3 °C at 0705 HKT on 12 February.

橫瀾島於九月十六日 0 時 15 分錄得本年最高陣風 112 公里/小時，風向 090 度。

The annual maximum gust peak speed recorded at Waglan Island was 112 kilometres per hour from 090 degrees at 0015 HKT on 16 September.

* 1981-2010 氣候平均值 (http://www.weather.gov.hk/cis/normal/1981_2010/normal_s_c.htm)

* 1981-2010 Climatological normal (http://www.weather.gov.hk/cis/normal/1981_2010/normal_s_e.htm)

表 5.1.2 二零一四年香港氣象觀測摘要(二)

Table 5.1.2 Summary of Meteorological Observations in Hong Kong (Part2), 2014

月份 Month	出現低能見度的時數# Number of hours of Reduced Visibility#		總日照 Total Bright Sunshine	平均每日 太陽總輻射 Mean Daily Global Solar Radiation	總蒸發量 Total Evaporation	盛行風向 Prevailing Wind Direction	平均風速 Mean Wind Speed
	小時 hours	小時 hours	小時 hours	兆焦耳/米 ² MJ/m ²	毫米 mm	度 degrees	公里/小時 km/h
一月 January	148	231	238.8	14.76	89.3	040	22.9
二月 February	49	58	91.9	10.08	59.8	050	26.6
三月 March	124	59	86.0	9.58	72.0 &	060	24.1
四月 April	111	75	119.4	12.95	82.3 &	080	20.6
五月 May	4	11	107.8	12.94	90.0 &	240	23.7
六月 June	17	17	147.3	15.78	127.7 &	230	18.8
七月 July	19	14	217.5	19.31	159.8 &	220	18.2
八月 August	0	0	212.0	18.59	135.4 &	240	17.7
九月 September	27	34	203.0	16.49	129.7 &	080	17.4
十月 October	63	81	222.9	16.30	146.4	100	24.3
十一月 November	34	108	141.4	10.98	85.7	090	25.0
十二月 December	26	115	115.3	9.41	85.8	020	30.5
平均/總值 Mean/Total	622	803	1903.3	13.93	1263.9 &	080	22.5
正常* Normal*	692.3	1379.3 §	1835.6	12.85	1227.3	080	23.3
觀測站 Station	天文台 Hong Kong Observatory	香港國際機場 Hong Kong International Airport	京士柏 King's Park		橫瀾島^ Waglan Island^		

天文台於三月三十日 20 時 35 分錄得本年最高瞬時降雨率 374 毫米/小時。

The annual maximum instantaneous rate of rainfall recorded at the Hong Kong Observatory was 374 millimetres per hour at 2035 HKT on 30 March.

低能見度是指能見度低於 8 公里，不包括出現霧、薄霧或降水。

- 在2004年及以前，香港國際機場的能見度讀數是基於專業氣象觀測員每小時的觀測數據。在2005年及以後，讀數是採用位於機場南跑道中間的能見度儀表在每小時前10分鐘的平均數據。這與使用儀器觀測來改進能見度評估的國際趨勢是一致的。
- 在2007年10月10日前曾出現於此摘錄內香港國際機場2005年及以後的低能見度時數資料乃基於專業氣象觀測員每小時的觀測數據。有關資料已於2007年10月10日起改為以機場南跑道中間之能見度儀表在每小時前10分鐘的平均數據計算。

Reduced visibility refers to visibility below 8 kilometres when there is no fog, mist, or precipitation.

- The visibility readings at the Hong Kong International Airport are based on hourly observations by professional meteorological observers in 2004 and before, and average readings over the 10-minute period before the clock hour of the visibility meter near the middle of the south runway from 2005 onwards. The change of the data source in 2005 is an improvement of the visibility assessment using instrumented observations following the international trend.
- Before 10 October 2007, the number of hours of reduced visibility at the Hong Kong International Airport in 2005 and thereafter displayed in this summary was based on hourly visibility observations by professional meteorological observers. Since 10 October 2007, the data have been revised using the average visibility readings over the 10-minute period before the clock hour, as recorded by the visibility meter near the middle of the south runway.

* 1981-2010 氣候平均值 (除特別列明外) (http://www.weather.gov.hk/cis/normal/1981_2010/normals_c.htm)

* 1981-2010 Climatological normal, unless otherwise specified (http://www.weather.gov.hk/cis/normal/1981_2010/normals_e.htm)

§ 1997-2013 平均值

§ 1997-2013 Mean value

& 數據不完整

& data incomplete

^ 如橫瀾島未能提供數據，則以長洲或其他鄰近氣象站的數據作補充，以計算盛行風向和平均風速

^ In case the data are not available from Waglan Island, observations of Cheung Chau or other nearby weather stations will be incorporated in computing the Prevailing Wind Direction and Mean Wind Speed

表 5.1.3 二零一四年香港氣象觀測摘要(三)

Table 5.1.3 Summary of Meteorological Observations in Hong Kong (Part3), 2014

月份 Month	酷熱天氣日數 Number of Very Hot days	熱夜日數 Number of Hot nights	寒冷天氣日數 Number of Cold days	雷暴日數 Number of days with Thunderstorm
一月 January	-	-	6	-
二月 February	-	-	9	-
三月 March	-	-	-	3
四月 April	-	-	-	3
五月 May	-	3	-	14
六月 June	5	8	-	10
七月 July	15	13	-	9
八月 August	6	6	-	11
九月 September	7	4	-	5
十月 October	-	-	-	4
十一月 November	-	-	-	-
十二月 December	-	-	6	-
平均/總值 Mean/Total	33	34	21	59
正常* Normal*	10.2	17.8	17.1	38.6
觀測站 Station	天文台 Hong Kong Observatory			

* 1981-2010 氣候平均值 (http://www.weather.gov.hk/cis/normal/1981_2010/normal_s_c.htm)

* 1981-2010 Climatological normal (http://www.weather.gov.hk/cis/normal/1981_2010/normal_s_e.htm)

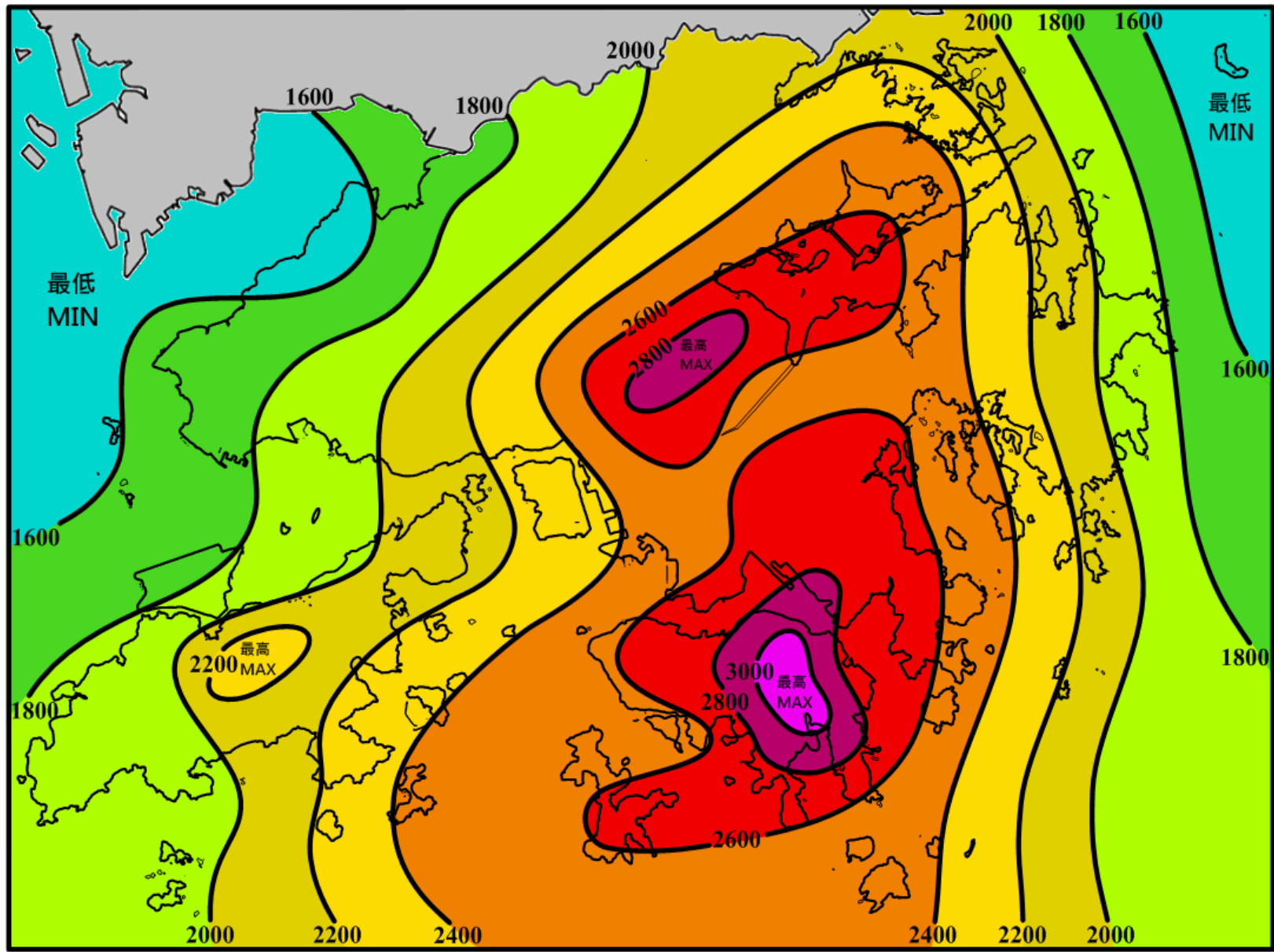


圖 5.1 2014 年香港年雨量分布
Figure 5.1 Annual rainfall distribution in Hong Kong in 2014

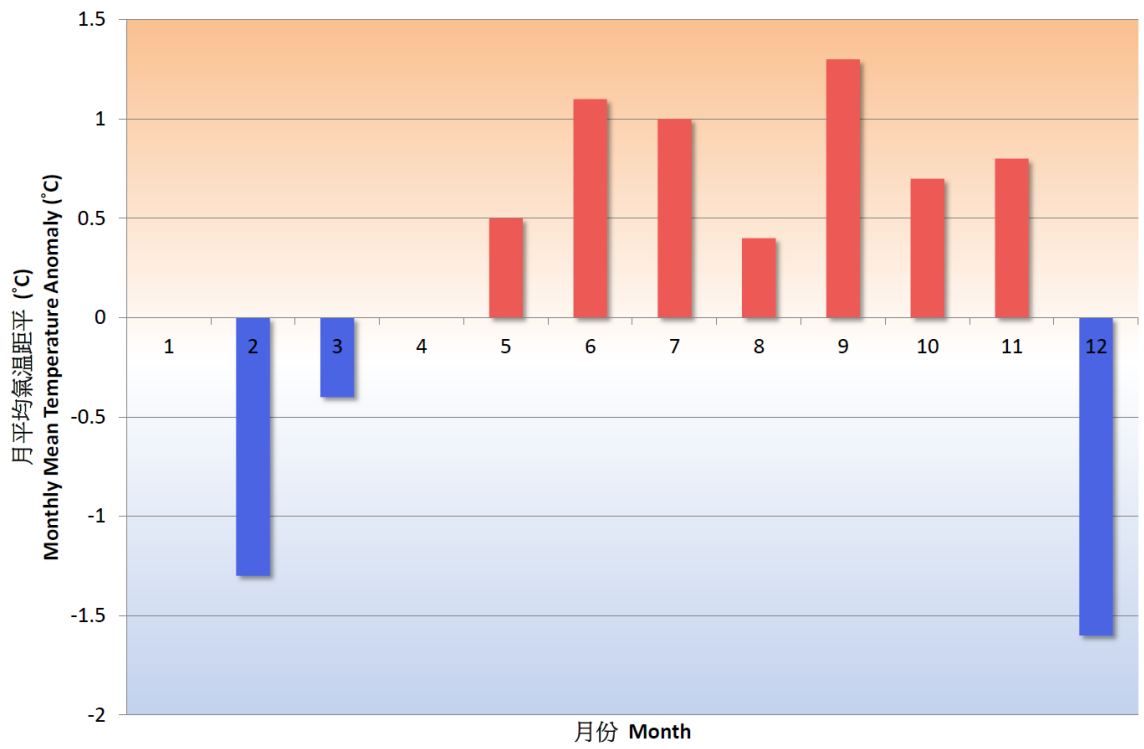


圖 5.2 2014 年香港月平均氣溫距平

Figure 5.2 Monthly mean temperature anomalies in Hong Kong in 2014

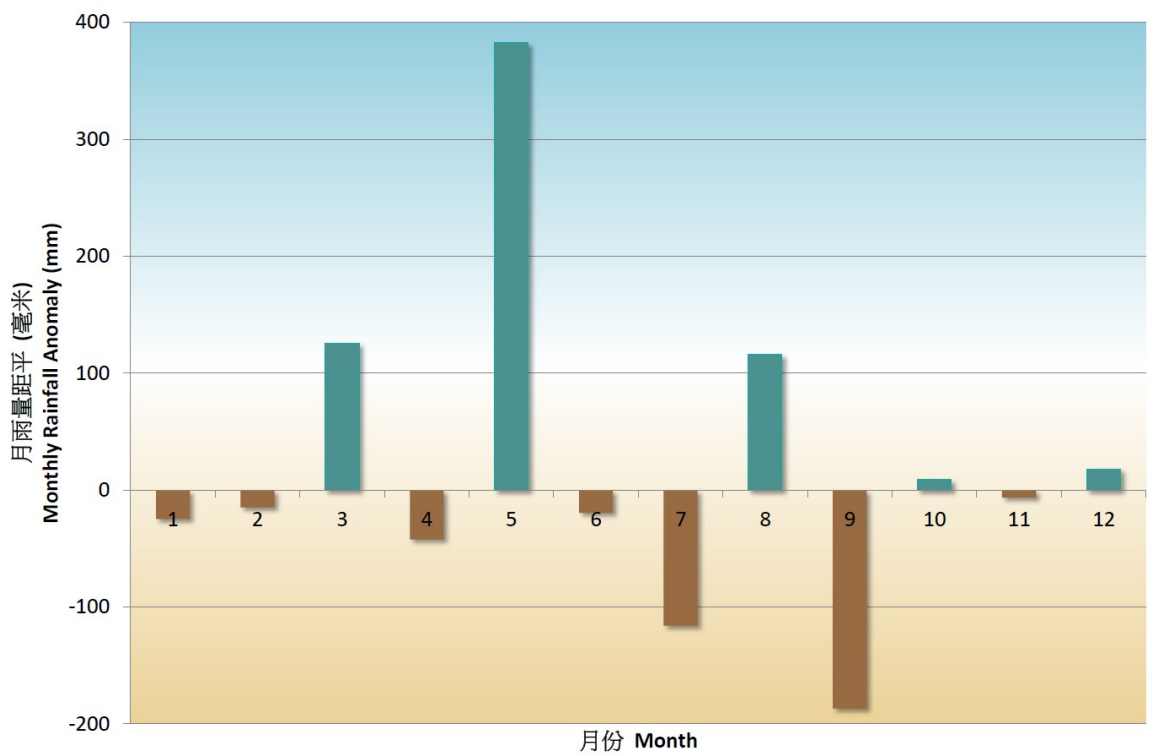


圖 5.3 2014 年香港月雨量距平

Figure 5.3 Monthly rainfall anomalies in Hong Kong in 2014

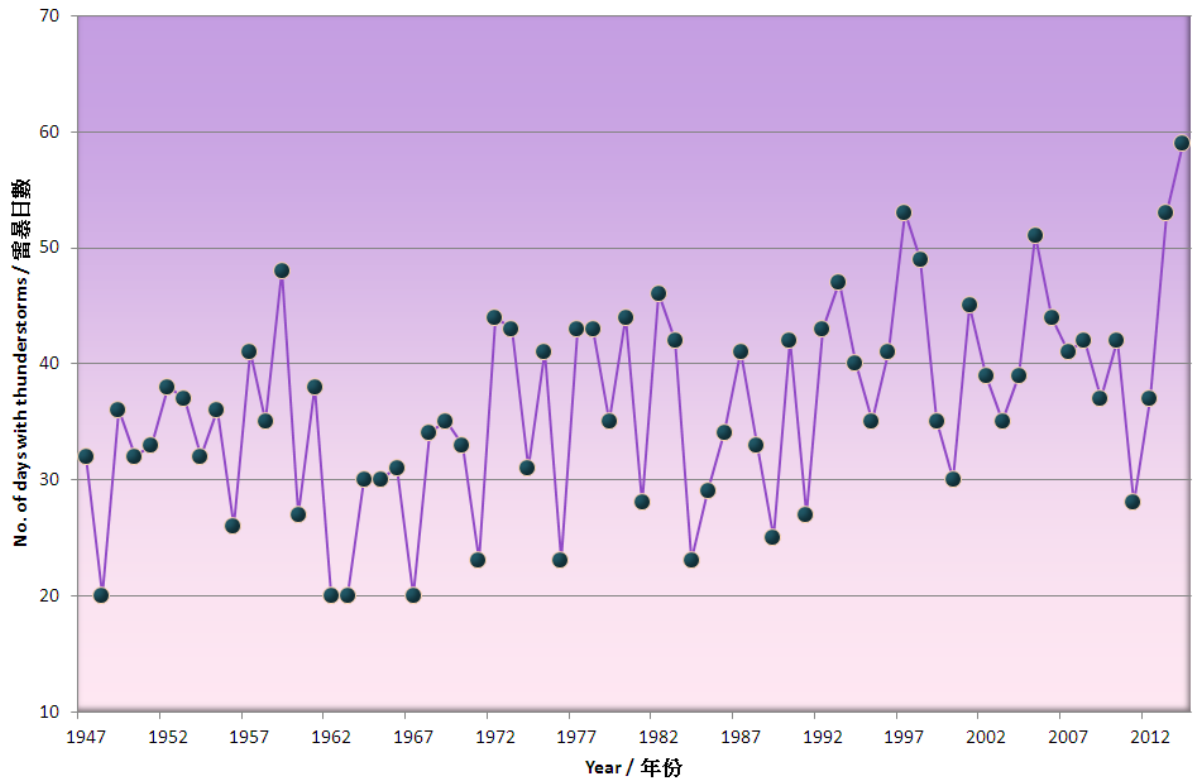


圖 5.4 自 1947 年以來在香港天文台錄得的全年雷暴日數的長期趨勢
 Figure 5.4 Long term trend of thunderstorm days as observed at the Hong Kong Observatory since 1947



圖 5.5 葵涌打磚坪街在颱風海鷗襲港期間發生棚架倒塌，一輛貨車及小巴受損
 (圖片由「星島日報」提供)

Figure 5.5 A scaffolding at Ta Chuen Ping Street of Kwai Chung collapsed, damaging a lorry and a minibus during the passage of Typhoon Kalmaegi. (Photo courtesy of Sing Tao Daily)

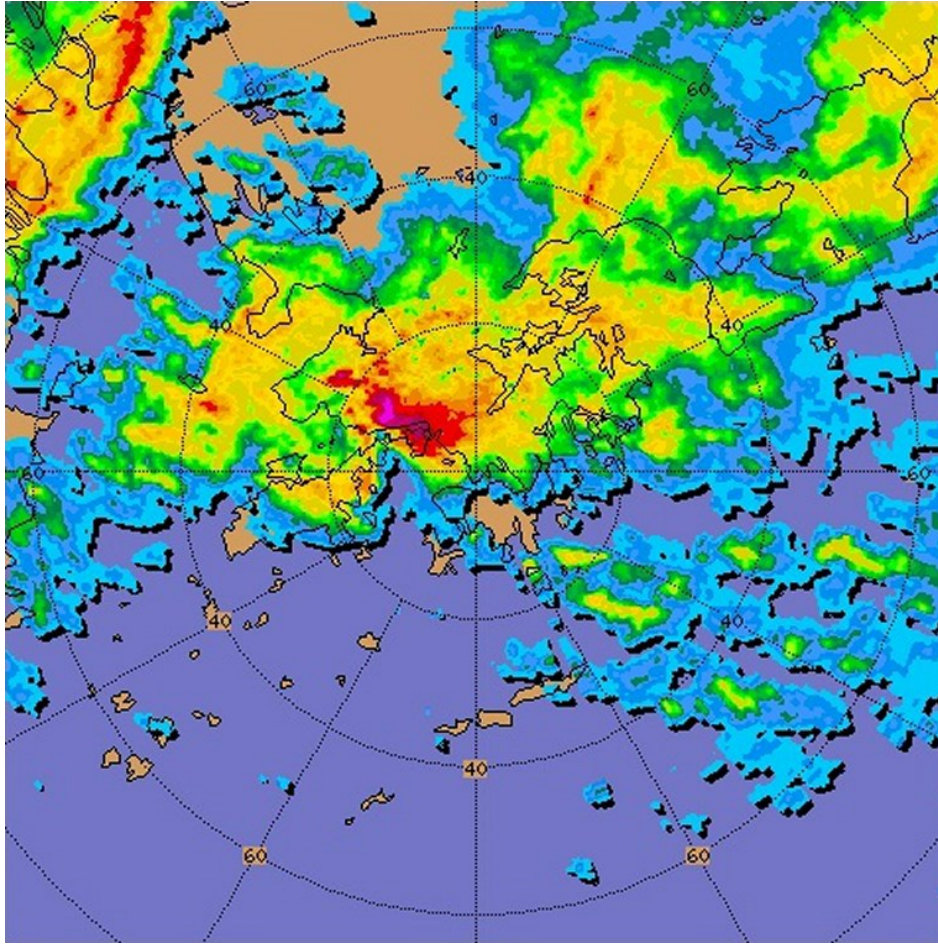


圖 5.6 雷達圖像顯示在 2014 年 3 月 30 日下午 8 時正一道強雨帶和帶有冰雹的雷暴正在橫過香港上空

Figure 5.6 Radar image showing heavy rain and hail-bearing thunderstorms crossing the territory at 8:00 p.m. on 30 March 2014



圖 5.7 2014 年 3 月 30 日下午 8 時 40 分左右在荃灣拾獲的冰雹 (圖片由張小姐提供)

Figure 5.7 A hail stone picked up in Tsuen Wan at around 8:40 p.m. on 30 March 2014 (Courtesy of Ms Susanna Cheung)

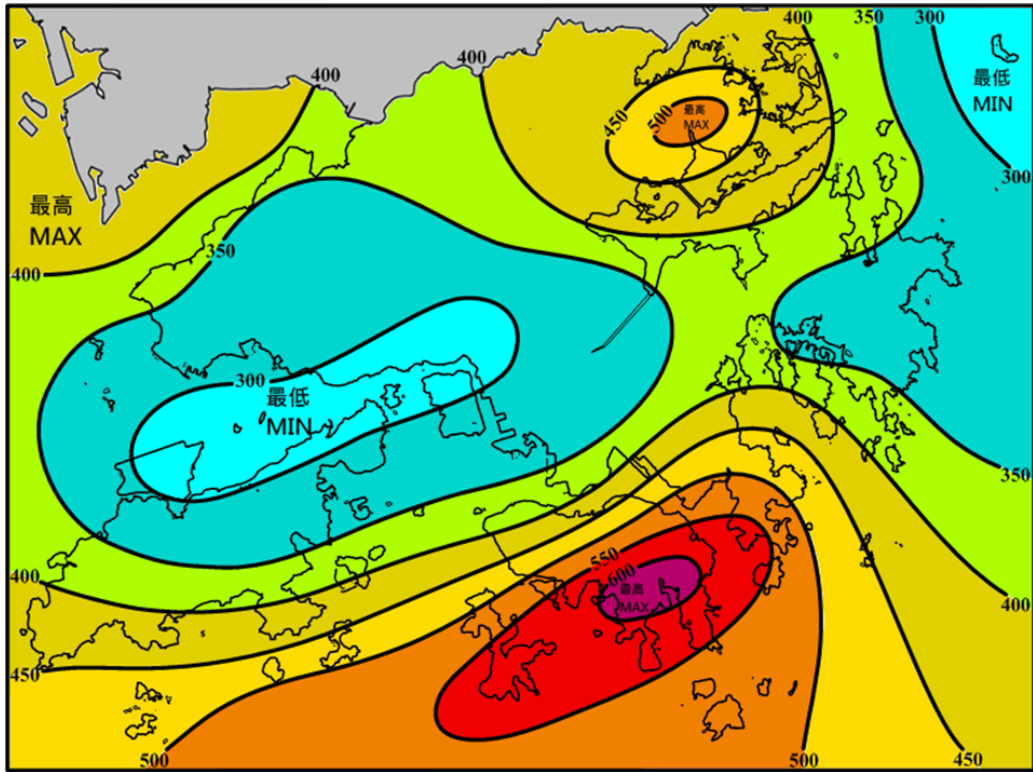


圖 5.8 2014 年 5 月 8 日至 12 日香港的雨量分布
 Figure 5.8 Rainfall Distribution in Hong Kong during 8-12 May 2014

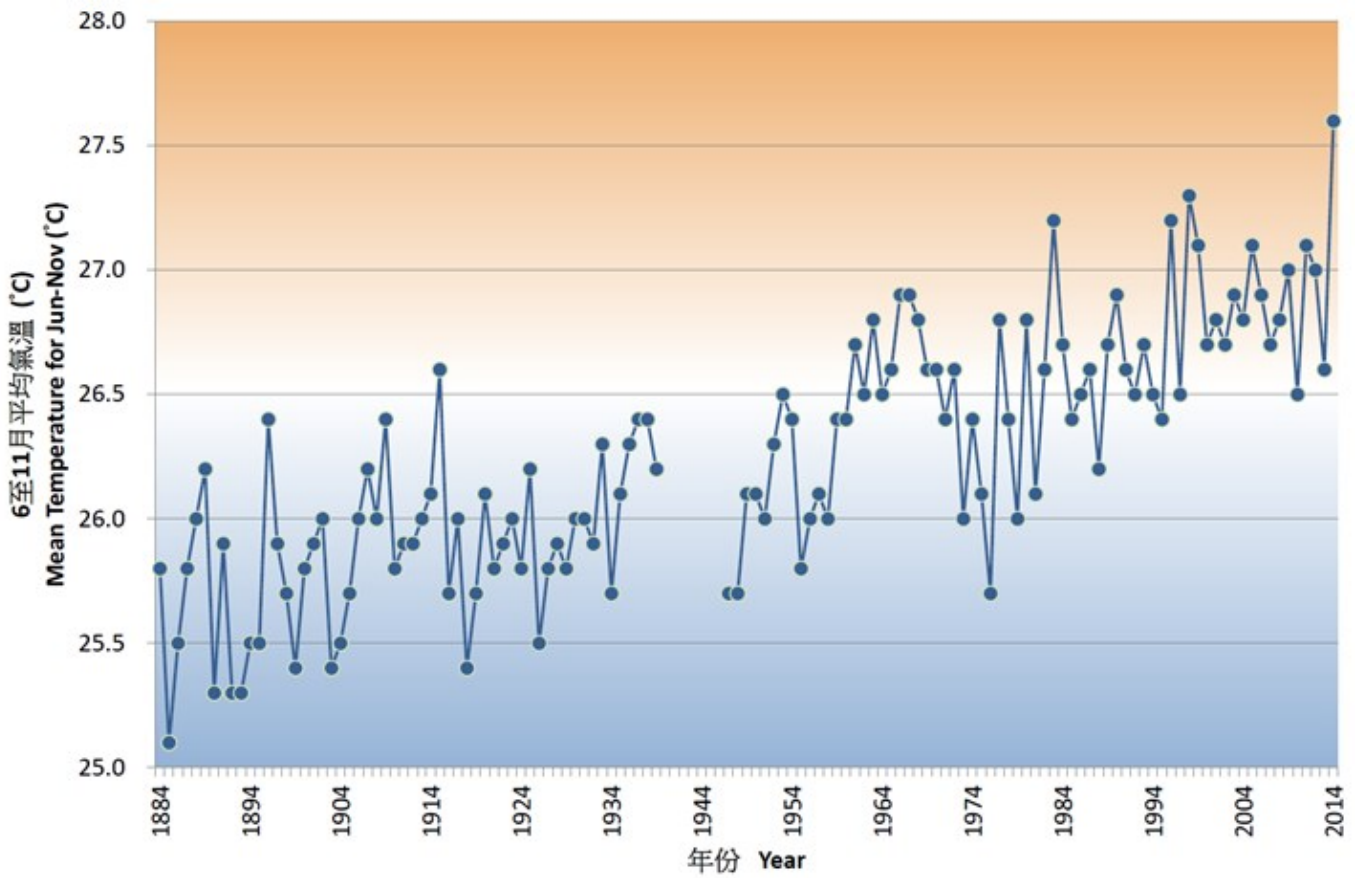


圖 5.9 香港天文台錄得的 6 月至 11 月平均氣溫的長期趨勢
 Figure 5.9 Long Term Trend of Mean Temperature for June to November recorded at the Hong Kong Observatory