每月天氣摘要
二零一二年八月

Monthly Weather Summary
August 2012

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二零一二年十一月出版

香港天文台編製
香港九龍彌敦道134A

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Published : November 2012

Prepared and published by : Hong Kong Observatory,
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Kowloon,
Hong Kong.

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1. 二零一二年八月天氣回顧

主要受熱帶氣旋蘇拉、啟德及天秤相關的內陸下沉氣流的影響，二零一二年八月是有紀錄以來其中一個最熱的八月。本月平均氣溫升至 29.5 度，較正常高 0.9 度，平了一九九零年、一九九八年及二零一一年的八月份最高紀錄。本月亦是自一九九二年以來最少雨的八月，月總雨量為 149.8 毫米，只有正常數值 432.2 毫米的百分之 35。而本年至今累積雨量為 1545.4 毫米，較同期正常數值 1905.5 毫米少約百分之 19。

受颱風蘇拉外圍的下沉氣流影響，本港天氣於首三天除有煙霞外，普遍天晴及酷熱。蘇拉於八月三日在福建沿岸登陸及於八月四日早上減弱為一個低壓區。受蘇拉殘餘相關的雨帶影響，八月四日至五日本港轉為大致多雲及有幾陣驟雨。一道低壓槽於八月六日初時為本港帶來多雲的天氣，並有幾陣驟雨及雷暴。隨著該道低壓槽消散，當日下午轉為天晴。

在一股內陸氣流影響下，八月七日至九日本港天氣除局部地區有幾陣雷暴外，大致天晴及酷熱。受一股活躍西南氣流影響，隨後四天本港多雲並有驟雨及狂風雷暴。八月十一日早上的大驟雨為港島部分地區帶來超過 80 毫米雨量。受華南上空的反氣旋影響，八月十四日除局部地區有幾陣驟雨外，大致天晴及炎熱。

位於菲律賓以東海域的熱帶氣旋啟德於八月十五日增強為強烈熱帶風暴，並在橫過呂宋北部後，進入南海。受啟德外圍的下沉氣流影響，八月十五日天氣酷熱。隨著啟德進一步增強為颱風及靠近廣東西部沿岸，八月十六日本港天氣轉為多雲及間中有狂風驟雨，風勢於下午逐漸增強，西南部地區及高地於當晚及翌日清晨間中吹烈風。隨著啟德遠離本港並於廣東西部湛江附近登陸，本地風力於日間逐漸緩和。啟德於八月十八日橫過越南北部，並於內陸消散。八月十八日及隨後三天除有一兩陣驟雨外，大致天晴。

一道低壓槽於八月二十二日為本港帶來多雲的天氣，並有驟雨及雷暴。隨著本地逐漸轉吹偏北風，翌日大致天晴，但有煙霞。

位於台灣以東海域的熱帶氣旋天秤於八月二十三日增強為強颱風，並橫過台灣南部，天秤在八月二十四日進入南海東北部。天秤於隨後兩天移動緩慢及在南海東北部徘徊。受北太平洋西部的另一個熱帶氣旋布拉萬的環流影響，天秤於八月二十七日向東北偏東移動，並於翌日向東北加速，移向台灣以東海域。受天秤相關的內陸下沉氣流影響，八月二十四日至二十八日本港天氣酷熱。天文台於八月二十八日的最高氣溫上升至 34.5 度，為本月的最高記錄。受廣東沿岸一股偏南氣流影響，八月二十九日至三十日部分時間有陽光及有幾陣驟雨。南海北部一道廣闊低壓槽於本月最後一天為本港帶來幾陣驟雨。

本月有七個熱帶氣旋影響北太平洋西部及南海，有關報告刊登於第二節。

本月有六班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。

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1. The Weather of August 2012

August 2012 was one of the hottest Augusts on record which was mainly attributed to the prevalence of the continental subsiding airstream associated with tropical cyclones Saola, Kai-tak and Tembin. The monthly mean temperature rose to 29.5 degrees which was 0.9 degrees above normal, equaling the records set in 1990, 1998 and 2011. It was also the driest August since 1992. The monthly total rainfall was 149.8 millimetres, only about 35 percent of the normal figure of 432.2 millimetres. The accumulated rainfall since 1 January was 1545.4 millimetres, a deficit of 19 percent comparing to the normal figure of 1905.5 millimetres for the same period.

Under the influence of the outer subsiding airstream of Typhoon Saola, the weather was generally fine and very hot apart from some haze for the first three days of the month. Saola made landfall over the coast of Fujian on 3 August and weakened into an area of low pressure on the morning of 4 August. Affected by the rainband associated with the remnants of Saola, it became mainly cloudy with a few showers on 4 and 5 August. On 6 August, a trough of low pressure brought cloudy weather with a few showers and thunderstorms to the territory at first. The weather turned fine in the afternoon when the trough dissipated.

Affected by a continental airstream, the weather was mainly fine and very hot apart from a few isolated thunderstorms from 7 to 9 August. An active southwesterly airstream brought cloudy weather with showers and squally thunderstorms to Hong Kong for the ensuing four days. The showers were heavier on the morning of 11 August. More than 80 millimetres of rainfall were recorded over parts of Hong Kong Island. Affected by the anticyclone aloft over southern China, it was mainly fine and hot apart from a few isolated showers on 14 August.

Over the sea east of the Philippines, tropical cyclone Kai-tak intensified into a severe tropical storm and moved across the northern part of Luzon, entering the South China Sea on 15 August. Affected by its outer subsiding airstream, local weather became very hot on that day. With Kai-tak further intensifying into a typhoon and edging closer to the coast of western Guangdong, the weather in Hong Kong turned cloudy with occasional squally showers on 16 August, with winds strengthening gradually in the afternoon and reaching gale

force occasionally in the southwestern part of the territory and on high ground that night and the early morning of 17 August. As Kai-tak moved away from Hong Kong, making landfall near Zhanjiang over western Guangdong, local winds weakened gradually during the day. Kai-tak moved across northern Vietnam and dissipated inland on 18 August. Local weather was mainly fine apart from a few showers on 18 August and the ensuing three days.

A trough of low pressure brought cloudy weather with showers and thunderstorms to Hong Kong on 22 August. With the winds turning northerly gradually, it became mainly fine with some haze the next day.

Over the sea east of Taiwan, tropical cyclone Tembin intensified into a severe typhoon on 23 August and moved across the southern part of Taiwan, entering the northeastern part of the South China Sea on 24 August. Tembin became slow-moving and lingered over the northeastern part of the South China Sea the next two days. Under the influence of the circulation of another tropical cyclone Bolaven over the western North Pacific, Tembin turned east-northeastward on 27 August and accelerated northeastward towards the sea east of Taiwan the next day. Affected by the subsiding continental airstream associated with Tembin, it was very hot in Hong Kong from 24 to 28 August. The temperature at the Observatory soared to a maximum of 34.5 degrees on 28 August, the highest of the month. Under a southerly airstream over the coast of Guangdong, there were sunny periods and a few showers in Hong Kong on 29 and 30 August. A broad trough of low pressure over the northern part of the South China Sea brought some showers to the territory on the last day of the month.

Seven tropical cyclones occurred over the western North Pacific and the South China Sea in the month. An overview of these tropical cyclones is presented in Section 2.

During the month, a total of six 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　二零一二年八月發出的警告及信號
Table 1.1　Warnings and Signals issued in August 2012

熱帶氣旋警告信號
Tropical Cyclones Warning Signals

熱帶氣旋名稱 Name of Tropical Cyclone	信號 Signal Number	開始時間 Beginning Time		終結時間 Ending Time	
		日/月 day/month	時 hour	日/月 day/month	時 hour
啟德 KAI-TAK	1	15/8	2010	16/8	1340
	3	16/8	1340	16/8	2215
	8 東南 8SE	16/8	2215	17/8	0620
	3	17/8	0620	17/8	1520
	1	17/8	1520	17/8	1625
天秤 TEMBIN	1	24/8	2240	26/8	1640

暴雨警告信號
Rainstorm 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 Amber	11/8	0640	11/8	0825

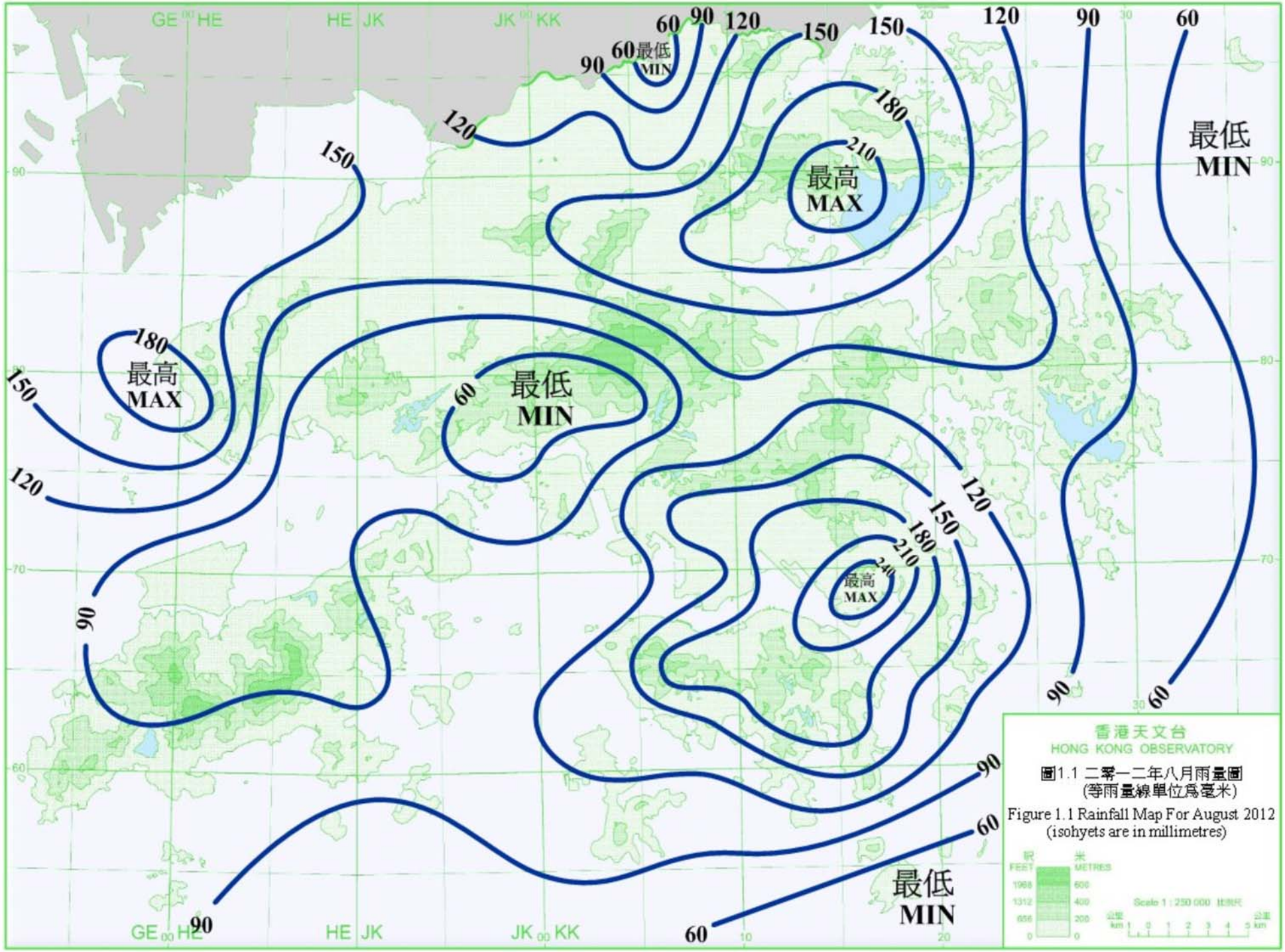
雷暴警告
Thunderstorm Warning

開始時間 Beginning Time		終結時間 Ending Time		開始時間 Beginning Time		終結時間 Ending Time	
日/月 day/month	時 hour	日/月 day/month	時 hour	日/月 day/month	時 hour	日/月 day/month	時 hour
1/8	0110	1/8	0315	5/8	0225	5/8	1030
5/8	2255	5/8	2355	6/8	0445	6/8	0700
6/8	1145	6/8	1345	7/8	1610	7/8	1730
7/8	1745	7/8	1930	8/8	0750	8/8	0900
8/8	1405	8/8	1715	9/8	1230	9/8	1330
9/8	1525	9/8	1900	10/8	0645	10/8	0745
10/8	0930	10/8	1640	11/8	0320	11/8	1000
11/8	1255	11/8	1500	12/8	0145	12/8	0745
12/8	2200	12/8	2300	13/8	0320	13/8	0715
13/8	1015	13/8	1600	15/8	2320	16/8	0130
16/8	0345	16/8	0730	16/8	1645	16/8	1800
19/8	1415	19/8	1800	20/8	1230	20/8	1430
21/8	1200	21/8	1400	22/8	0325	22/8	0430
22/8	0850	22/8	1200	23/8	1435	23/8	1520
28/8	1325	28/8	1430	28/8	2325	29/8	0930
30/8	0815	30/8	1030	30/8	1240	30/8	1415
31/8	0715	31/8	0830				

酷熱天氣警告

Very Hot Weather Warning

開始時間 Beginning Time		終結時間 Ending Time		開始時間 Beginning Time		終結時間 Ending Time	
日/月 day/month	時 hour	日/月 day/month	時 hour	日/月 day/month	時 hour	日/月 day/month	時 hour
1/8	0645	3/8	2145	7/8	0745	9/8	1945
15/8	0645	15/8	1950	20/8	1615	21/8	1620
23/8	0755	24/8	1900	25/8	1235	25/8	2045
26/8	0655	29/8	0425	30/8	1320	30/8	1900


GE HE
HE JK
JK KK
60
90
120
150
180
210
240
最低
MIN
最高
MAX
香港天文台
HONG KONG OBSERVATORY
圖1.1 二零一二年八月雨量圖
(等雨量線單位爲毫米)
Figure 1.1 Rainfall Map For August 2012
(isohyets are in millimetres)
FEET
METRES
Scale 1 : 250 000

2.1　二零一二年八月熱帶氣旋概述

二零一二年八月在北太平洋西部及南海區域出現了七個熱帶氣旋，其中啟德及天秤引致天文台發出熱帶氣旋警告信號。有關啟德及天秤的詳細描述及傷亡報告分別載於第2.2及2.3節。圖2.1.1顯示各熱帶氣旋的路徑。

熱帶低氣壓蘇拉於七月二十八日在馬尼拉以東約700公里的北太平洋西部上形成，並大致向西北偏北移動，當日下午增強為熱帶風暴。蘇拉於七月二十九日繼續增強為強烈熱帶風暴，翌日在呂宋海峽以東進一步增強為颱風。蘇拉於八月一日在台灣以東海域轉向西北移動，並達到其最高強度，中心附近最高持續風力達每小時145公里。八月二日蘇拉橫過台灣北部，進入台灣海峽。它於八月三日早上減弱為強烈熱帶風暴，並在福建沿岸登陸，翌日在江西內陸消散。根據報章報導，蘇拉吹襲菲律賓期間造成37人死亡。蘇拉帶來的暴雨在台灣引致嚴重水浸及山泥傾瀉，造成至少五人死亡、兩人失蹤、另15人受傷。福建緊急疏散30.6萬人。

熱帶低氣壓達維於七月二十八日在硫黃島以東約530公里的北太平洋西部上形成，初時移動緩慢。它於七月三十日開始大致向西北偏西移動及增強為熱帶風暴。達維於七月三十一日在日本以南的北太平洋西部上進一步增強為強烈熱帶風暴，八月一日掠過九州以南海域。翌日達維在東海上增強為颱風，並達到其最高強度，中心附近最高持續風力達到每小時120公里，並於當晚在江蘇北部沿岸登陸。達維於八月三日逐漸減弱為熱帶風暴及轉為向東北偏北移動，八月四日在中國東北部沿岸消散。達維吹襲期間，造成山東最少兩人死亡、二十九人受傷、兩萬多間房屋倒塌或受損。

熱帶低氣壓海葵於八月二日在硫黃島之東南偏東約340公里的北太平洋西部上形成，並大致向西北偏西移動，於八月三日在北太平洋西部上增強為熱帶風暴，八月五日進一步增強為強烈熱帶風暴。海葵於八月六日橫過東海及減慢移動速度，並增強為颱風，翌日在温州以東的東海上進一步增強為強颱風，並達到其最高強度，中心附近最高持續風力達到每小時155公里。海葵於八月八日早上在浙江沿岸地區登陸，並逐漸減弱為熱帶風暴。它於八月九日繼續減弱為熱帶低氣壓，八月十日在安徽上空消散。海葵吹襲浙江期間，造成至少4 000 間房屋倒塌，40 萬戶停電。

熱帶低氣壓鴻雁於八月四日在硫黃島以東約2 090公里的北太平洋西部上形成，初時移動緩慢，翌日向北移動。鴻雁於八月七日向西北移動，翌日增強為熱帶風暴。鴻雁於八月九日下午在日本以東的北太平洋西部上增強為強烈熱帶風暴，並達到其最高強度，中心附近最高持續風力達到每小時90公里。鴻雁於當日黃昏減弱為熱帶風暴，八月十日在日本北海道以東轉變為温帶氣旋。

熱帶低氣壓啟德於八月十二日在馬尼拉之東北偏東約960公里的北太平洋西部上形成，並向西至西北偏西移動，於翌日增強為熱帶風暴。啟德於八月十五日橫過呂宋北部，黃昏時進入南海北部及增強為強烈熱帶風暴。八月十六日啟德加速向西北偏西移動橫過南海北部及進一步增強為颱風，並達到其最高強度，中心附近最高持續風力達到每小時120公里。它於八月十七日下午初時在廣東西部湛江附近登陸，其後橫過北部灣，黃昏時減弱為強烈熱帶風暴。啟德於八月十八日橫過越南北部，隨後在內陸消散。

熱帶低氣壓天秤於八月十八日在馬尼拉東北約690公里的北太平洋西部上形成及移動緩慢，翌日逐漸增強為強烈熱帶風暴。天秤於八月二十日在呂宋以東的海域上繼續逐漸增強為強颱風，並向北移動及達到其最高強度，中心附近最高持續風力達到每小時175公里。它於八月二十二日轉向西移動，移向台灣及減弱為颱風。天秤於翌日再次增強為強颱風，於八月二十四日橫過台灣南部，減弱為颱風及進入南海東北部，隨後兩天在南海東北部徘徊。受北太平洋西部的另一股熱帶氣旋布拉萬的影響，天秤於八月二十七日向東北偏東移動，並於翌日向東北加速，橫過台灣以東海域及減弱為強烈熱帶風暴。它於八月二十九日向東北偏北移動，橫過東海，八月三十日早上在韓國登陸，黃昏時在韓國東部變為温帶氣旋。

熱帶低氣壓布拉萬於八月二十日在硫黃島以南約830公里的北太平洋西部上形成，並大致向西北移動。它在北太平洋西部上逐漸增強，於八月二十二日增強為颱風，兩天後成為強颱風。布拉萬於八月二十六日在冲繩島之東南進一步增強為超強颱風，並達到其最高強度，中心附近最高持續風力達到每小時185公里，黃昏時掠過冲繩島。它於八月二十七日轉向西北偏北移動，橫過東海，並減弱為強颱風，翌日橫過黃海，晚上在朝鮮沿岸登陸。布拉萬於八月二十九日在中國東北部內陸消散。布拉萬吹襲期間，造成沖繩島至少四人受傷及約三萬七千戶停電。此外，韓國最少有七人喪生，超過一百七十萬戶停電。濟州島附近海域有兩艘中國漁船在風暴中分別擱淺及沉沒，造成至少五人死亡、十人失蹤。

2.1 Overview of Tropical Cyclones in August 2012

Seven tropical cyclones occurred over the western North Pacific and South China Sea in August 2012. Amongst them, Kai-tak and Tembin necessitated the issuance of tropical cyclone warning signals in Hong Kong. The detailed reports of Kai-tak and Tembin including reports of damage are presented in Sections 2.2 and 2.3 respectively. Figure 2.1.1 shows the tracks of the tropical cyclones.

Saola formed as a tropical depression over the western North Pacific about 700 km east of Manila on 28 July. Moving generally north-northwestwards, it intensified into a tropical storm that afternoon. Saola continued to intensify into a severe tropical storm on 29 July and further into a typhoon to the east of the Luzon Strait on the following day. It turned to move northwestwards over the seas to the east of Taiwan on 1 August, reaching its peak intensity with an estimated maximum sustained wind of 145 km/h near its centre. Saola moved across the northern part of Taiwan and entered the Taiwan Strait on 2 August. It weakened into a severe tropical storm and made landfall over the coast of Fujian on the morning of 3 August, dissipating inland over Jiangxi on the following day. According to press reports, 37 people were killed in the Philippines during the passage of Saola. Rainstorms brought about by Saola resulted in severe flooding and landslides in Taiwan where at least 5 people were killed, two missing and 15 others injured. In Fujian, 306 000 people had to be evacuated during the passage of Saola.

Damrey formed as a tropical depression over the western North Pacific about 530 km east of Iwo Jima on 28 July and was slow moving initially. It started to move generally west-northwestwards on 30 July and intensified into a tropical storm. Damrey strengthened further into a severe tropical storm over the western North Pacific to the south of Japan on 31 July and moved across the seas south of Kyushu on the following day. It intensified into a typhoon over the East China Sea on 2 August, reaching its peak intensity with an estimated maximum sustained wind of 120 km/h near its centre, and made landfall over the coast of northern Jiangsu that night. Damrey gradually weakened into a tropical storm on 3 August and turned to move generally north-northeastwards. It dissipated over the coastal areas of northeast China on 4 August. At least two people were killed, 29 others injured and some 20 000 houses collapsed or damaged in Shangdong during the passage of Damrey.

Haikui formed as a tropical depression over the western North Pacific about 340 km east-southeast of Iwo Jima on 2 August and moved generally west-northwestwards. Haikui intensified into a tropical storm over the western North Pacific on 3 August and further into a severe tropical storm on 5 August. Haikui slowed down as it moved across the East China

Sea on 6 August and intensified into a typhoon. It strengthened further into a severe typhoon over the East China Sea to the east of Wenzhou on 7 August, reaching its peak intensity with an estimated maximum sustained wind of 155 km/h near its centre. Haikui made landfall over the coastal areas of Zhejiang on the morning of 8 August and gradually weakened into a tropical storm. It continued to weaken into a tropical depression on 9 August and dissipated over Anhui on 10 August. At least 4 000 houses collapsed and electricity supply to 0.4 million households were interrupted in Zhejiang during the passage of Haikui.

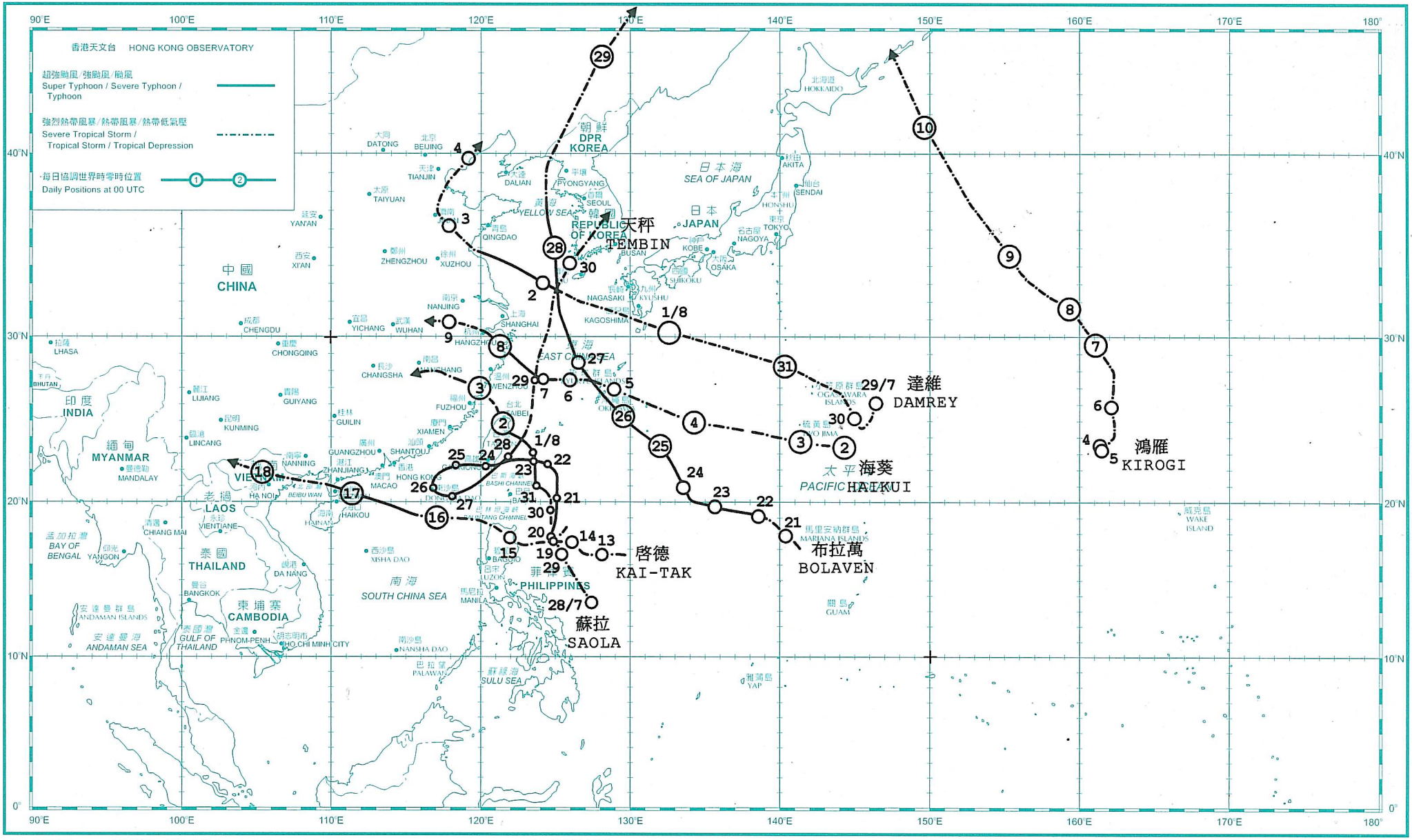
Kirogi formed as a tropical depression over the western North Pacific about 2 090 km east of Iwo Jima on 4 August and was slow moving initially. It moved northwards on the following day. Kirogi moved northwestwards on 7 August and intensified into a tropical storm on 8 August. Kirogi intensified into a severe tropical storm over the western North Pacific to the east of Japan on the afternoon of 9 August, reaching its peak intensity with an estimated maximum sustained wind of 90 km/h near its centre. It weakened into a tropical storm that evening and became an extratropical cyclone to the east of Hokkaido, Japan on 10 August.

Kai-tak formed as a tropical depression over the western North Pacific about 960 km east-northeast of Manila on 12 August. Moving west to west-northwestwards, it intensified into a tropical storm on the following day. Kai-tak moved across northern Luzon on 15 August, entered the northern part of the South China Sea that evening and intensified into a severe tropical storm. On 16 August, Kai-tak speeded up on a west-northwesterly track across the northern part of the South China Sea and intensified further into a typhoon, reaching its peak intensity with an estimated maximum sustained wind of 120 km/h. It made landfall near Zhanjiang over western Guangdong in the early afternoon on 17 August, moved across Beibu Wan later and weakened into a severe tropical storm that evening. Kai-tak moved across northern Vietnam and dissipated inland on 18 August.

Tembin formed as a tropical depression over the western North Pacific about 690 km northeast of Manila on 18 August and was slow moving. It intensified gradually into a severe tropical storm on the following day. Tembin continued to intensify gradually into a severe typhoon over the seas to the east of Luzon on 20 August and moved northwards, reaching its peak intensity with an estimated maximum sustained wind of 175 km/h near its centre. It turned to move westwards towards Taiwan and weakened into a typhoon on 22 August. Tembin strengthened into a severe typhoon again on 23 August. It moved across the southern part of Taiwan, weakening into a typhoon and entered the northeastern part of the South China Sea on 24 August. Tembin lingered over the northeastern part of the South China Sea for the following two days. Under the influence of another tropical cyclone

Bolaven over the western North Pacific, Tembin turned to move east-northeastwards on 27 August, accelerated northeastwards across the seas east of Taiwan, weakening into a severe tropical storm on 28 August. Tembin then moved north-northeastwards across the East China Sea on 29 August and made landfall over the Republic of Korea on the morning of 30 August. It became an extratropical cyclone over the eastern part of the Republic of Korea that evening.

Bolaven formed as a tropical depression over the western North Pacific about 830 km south of Iwo Jima on 20 August and moved generally northwestwards. It intensified gradually over the western North Pacific, becoming a typhoon on 22 August and a severe typhoon two days later. Bolvaen strengthened further into a super typhoon to the southeast of Okinawa on 26 August, reaching its peak intensity with an estimated maximum sustained wind of 185 km/h near its centre. Bolvaen moved across the Rykuyu Islands in the evening. It turned to move north-northwestwards across the East China Sea on 27 August, weakening into a severe typhoon. Bolaven moved across the Yellow Sea on 28 August and made landfall over the coast of DPR Korea that night. Bolaven dissipated inland over northeastern China on 29 August. During the passage of Bolaven, four people were injured and around 37 000 housesholds left without electricity in Okinawa. At least seven people were killed and over 1.7 million households left without electricity in the Republic of Korea. Two Chinese fishing boats ran aground and sank respectively in the waters near Jeiju, causing at least five deaths and 10 others missing.



H.K.O. 80C (2009) 圖卡托投影－北緯 22½° Mercator Projection -- Latitude 22½° N 地政總署測繪處繪製 Cartography by Survey and Mapping Office, Lands Department

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圖 2.1.1 二零一二年八月的熱帶氣旋路徑圖

Figure 2.1.1 Track of tropical cyclones in August 2012

2.2 颱風啟德(1213)
二零一二年八月十二日至十八日

啟德是香港天文台在二零一二年第四個需要發出熱帶氣旋警告信號的熱帶氣旋。啟德亦是年內第三個引致天文台發出八號烈風或暴風信號的熱帶氣旋。

熱帶低氣壓啟德於八月十二日在馬尼拉之東北偏東約 960 公里的西北太平洋上形成，並向西至西北偏西移動，於翌日增強為熱帶風暴。啟德於八月十五日橫過呂宋北部，黃昏時進入南海北部及增強為強烈熱帶風暴。八月十六日啟德加速向西北偏西移動，在東沙的西南偏南掠過，下午進一步增強為颱風，並達到其最高強度，中心附近最高持續風力達到每小時 120 公里。八月十七日早上啟德移近廣東西部沿岸，在上午 11 時，湛江錄得的海平面氣壓為 982.2 百帕斯卡。啟德於下午初時在湛江附近登陸，其後橫過北部灣，黃昏時減弱為強烈熱帶風暴，並在中越邊境交界處再次登陸。啟德於八月十八日早上橫過越南北部及減弱為熱帶風暴，下午在內陸消散。

根據報章報導，啟德吹襲菲律賓期間，造成七人死亡，兩人失蹤。啟德造成廣東、廣西、海南兩人死亡，另兩人失蹤。廣東約有2 000 間房屋倒塌，5 300 餘間受損，而廣西則有2 200餘間房屋倒塌，12 000間受損。啟德登陸湛江時，恰逢天文大潮期，帶來強風暴潮。一艘輪船受到啟德影響在廣西欽州港擱淺，船上六人獲救。廣西北海市有輸油船擱淺，泄漏柴油。啟德導致越南北部至少17人受傷，數千房屋被毀。

香港天文台於八月十五日下午8時10分發出一號戒備信號，當時啟德位於香港之東南偏東約690公里。當晚本港吹微風。隨着啟德移近華南沿岸，八月十六日本港風勢逐漸增強，天文台在下午1時40分發出三號強風信號，當時啟德集結在香港之東南偏南約380公里。下午本港吹清勁東北風，離岸及高地風勢強烈。晚間啟德繼續移近香港，本港普遍吹偏東強風，高地吹烈風，風勢進一步增強，天文台在下午10時15分改發八號東南烈風或暴風信號，當時啟德集結在香港以南約270公里。啟德在午夜左右最接近香港，並在香港西南偏南約260公里處掠過。八月十七日凌晨本港逐漸轉吹東南風，高地及本港西南部海域吹烈風。隨著啟德開始遠離，黎明前本港風勢逐漸減弱，天文台在上午6時20分改發三號強風信號，取代八號信號。日間啟德繼續移離本港，風勢進一步減弱，天文台在下午3時20分改發一號戒備信號，隨後於下午4時25分取消所有熱帶氣旋警告信號。

啟德吹襲期間，本港接近海平面錄得的最高每小時平均風速分別為長洲及橫瀾島的 68 及 70 公里，而長洲及青洲均錄得每小時 103 公里的陣風。香港天文台總部於八月十六日下午 3 時 06 分至 5 時 26 分錄得最低瞬時海平面氣壓 999.1 百帕斯卡。

啟德吹襲期間，尖鼻咀錄得海圖基準面以上 2.89 米的最高潮位及最大高度為 0.60 米的風暴潮。

八月十五日香港天氣大致天晴及天氣酷熱。八月十六日轉為大致多雲及有幾陣狂風驟雨及雷暴，本港部分地區錄得超過20毫米的雨量。八月十七日初時本港繼續有狂風驟雨，日間雨勢逐漸減弱。

啟德影響香港期間，本港有一人受傷及共有493棵樹木倒塌。香港國際機場有34班航班延誤、六班航班取消，另外六班轉飛其他機場。

表2.2.1- 2.2.4 分別是啟德影響香港期間各站錄得的最高風速、持續風力達到強風及烈風程度的時段、香港的日雨量及最高潮位資料。圖2.2.1為啟德的路徑圖。圖2.2.2顯示長洲錄得的風向及風速。圖2.2.3-2.2.5 分別為本港的雨量分佈圖、啟德的衛星圖像及最接近香港時的雷達圖像。

2.2 Typhoon Kai-tak (1213)
12 – 18 August 2012

Kai-tak was the fourth tropical cyclone that necessitated the issuance of a tropical cyclone warning signal by the Hong Kong Observatory in 2012. It was also the third tropical cyclone that necessitated the issuance of the No. 8 Gale or Storm Signal during the year.

Kai-tak formed as a tropical depression over the western North Pacific about 960 km east-northeast of Manila on 12 August. Moving west to west-northwestwards, it intensified into a tropical storm on the following day. Kai-tak moved across northern Luzon on 15 August, entered the northern part of the South China Sea that evening and intensified into a severe tropical storm. On 16 August, Kai-tak speeded up on a west-northwesterly track across the northern part of the South China Sea to the south-southwest of Dongsha and intensified further into a typhoon in the afternoon, reaching its peak intensity with an estimated maximum sustained wind of 120 km/h. Kai-tak moved close to the coast of western Guangdong in the morning on 17 August. Mean sea-level pressure of 982.2 hPa was recorded at Zhanjiang at 11 a.m. It made landfall near Zhanjiang in the early afternoon and moved across Beibu Wan later. Kai-tak weakened into a severe tropical storm and made landfall over the region of the Sino-Vietnamese border that evening. It moved across northern Vietnam and weakened into a tropical storm in the morning on 18 August, dissipating inland in the afternoon.

According to press reports, seven people were killed and two missing in the Philippines during the passage of Kai-tak. In the fury of Kai-tak, two people were killed and two others missing in Guangdong, Guangxi and Hainan. Around 2 000 houses collapsed and 5 300 houses damaged in Guangdong. Some 2 200 houses collapsed and 12 000 houses damaged in Guangxi. In Zhangjiang, spring tide coincided with the landfall of Kai-tak and brought severe storm surge there. A vessel ran aground in Qinzhou, Guangxi and six people on board were rescued. A tanker ran aground in Beihai, Guangxi, with the spilling of diesel fuel. In northern Vietnam, at least 17 people were killed and thousands of houses damaged during the passage of Kai-tak.

In Hong Kong, the Standby Signal No. 1 was issued at 8:10 p.m. on 15 August when Kai-tak was about 690 km east-southeast of Hong Kong. Light winds prevailed over the territory that night. As Kai-tak moved closer to the south China coast, local winds strengthened gradually on 16 August and the Strong Wind Signal No. 3 was issued at 1:40 p.m. when Kai-tak was about 380 km south-southeast of Hong Kong. Local winds were fresh northeasterlies, strong offshore and on high ground in the afternoon. With Kai-tak moving closer to Hong Kong at night, local winds strengthened further and became

generally strong easterlies, reaching gale force on high ground. The No. 8 SE Gale or Storm Signal was issued at 10:15 p.m. when Kai-tak was about 270 km south of Hong Kong. Kai-tak was closest to Hong Kong at around midnight when it was passing about 260 km to the south-southwest. Winds gradually changed to the southeasterlies in the small hours on 17 August, with gales on high ground and over the waters in the southwestern part of Hong Kong. Winds gradually subsided before dawn as Kai-tak started to move away from Hong Kong. The Strong Wind Signal No. 3 was issued at 6:20 a.m. to replace the No. 8 Signal. Kai-tak continued to move away from Hong Kong during the day and local winds continued to weaken. The Standby Signal No. 1 was issued at 3:20 p.m. and all tropical cyclone warning signals were subsequently cancelled at 4:25 p.m.

During the passage of Kai-tak, the maximum hourly mean wind recorded near sea level were 68 and 70 km/h at Cheung Chau and Waglan Island respectively, while gusts of 103 km/h were recorded at both Cheung Chau and Green Island. At the Hong Kong Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 999.1 hPa was recorded between 3:06 p.m. and 5:26 p.m. on 16 August.

During the passage of Kai-tak, a maximum sea level and maximum storm surge of 2.89 m and 0.60 m respectively above chart datum was recorded at Tsim Bei Tsui.

The weather in Hong Kong was generally fine and very hot on 15 August. It became mainly cloudy with a few squally showers and thunderstorms on 16 August. More than 20 millimetres of rainfall were recorded over parts of the territory. Squally showers continued to affect Hong Kong at first on 17 August. The showers gradually eased off during the day.

In Hong Kong, one person was injured during the passage of Kai-tak. The number of fallen trees amounted to 493. At the Hong Kong International Airport, 34 flights were delayed, six flights were cancelled and another six flights diverted during the passage of Kai-tak.

Information on the maximum wind, periods of strong and gale force winds, daily rainfall and maximum sea level reached in Hong Kong during the passage of Kai-tak is given in Tables 2.2.1- 2.2.4 respectively. Figures 2.2.1 show the track of Kai-tak. Charts in figures 2.2.2 show the time traces of wind direction and wind speed recorded at Cheung Chau. Figures 2.2.3 – 2.2.5 show respectively the rainfall distribution for Hong Kong, a satellite imagery of Kai-tak and radar imagery of Kai-tak near its closest approach to Hong Kong.

表 2.2.1　在啟德影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 2.2.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Kai-tak were in force

站 Station (http://www.weather.gov.hk/informtc/appendix_c.htm)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean Wind				
		風向 Direction		風速 (公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Direction		風速 (公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time
黃麻角(赤柱)	Bluff Head (Stanley)	東南偏東	ESE	77	17/8	02:05	東南偏東	ESE	51	17/8	03:00
中環碼頭	Central Pier	東北偏東	ENE	79	16/8	19:28	東	E	52	16/8	20:00
長洲	Cheung Chau	東南偏東	ESE	103	17/8	00:39	東南偏東	ESE	68	17/8	03:00
長洲泳灘	Cheung Chau Beach	東	E	96	17/8	00:18	東	E	67	17/8	01:00
青洲	Green Island	東北	NE	103	16/8	19:29	東北	NE	63	16/8	20:00
香港國際機場	Hong Kong International Airport	東南偏東	ESE	75	17/8	02:28	東南偏東	ESE	47	17/8	11:00
啟德	Kai Tak	東	E	77	16/8	19:16	東	E	36	16/8	21:00
京士柏	King's Park	東	E	72	17/8	00:30	東南偏東	ESE	31	17/8	02:00
流浮山	Lau Fau Shan	東北偏東	ENE	72	17/8	00:47	東北偏東	ENE	31	16/8	21:00
昂坪	Ngong Ping	東	E	137	17/8	00:21	東	E	94	17/8	02:00
北角	North Point	東	E	81	16/8	19:28	東	E	40	16/8	22:00
坪洲	Peng Chau	東南偏東	ESE	79	16/8	19:35	東	E	54	16/8	21:00
西貢	Sai Kung	東南偏南	SSE	77	17/8	13:24	東北偏東	ENE	47	16/8	21:00
沙洲	Sha Chau	東南	SE	76	17/8	10:50	東南	SE	49	17/8	04:00
沙螺灣	Sha Lo Wan	東	E	81	16/8	19:11	東	E	43	16/8	22:00
沙田	Sha Tin	東北偏東	ENE	65	16/8	19:15	東北	NE	22	16/8	20:00
石崗	Shek Kong	東北	NE	68	16/8	20:13	東	E	31	17/8	01:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	83	16/8	22:35	東	E	47	17/8	01:00
打鼓嶺	Ta Kwu Ling	東	E	63	17/8	02:29	東	E	23	17/8	02:00
大美督	Tai Mei Tuk	東北偏東	ENE	79	16/8	22:13	東北偏東	ENE	59	16/8	21:00
		東	E	79	16/8	22:56					
大帽山	Tai Mo Shan	-	-	117	17/8	00:28	-	-	83	17/8	01:00
大埔滘	Tai Po Kau	東南	SE	79	17/8	02:18	東	E	43	16/8	21:00
塔門	Tap Mun	東南	SE	72	17/8	02:27	東	E	31	16/8	20:00
							東南	SE	31	17/8	03:00
大老山	Tate's Cairn	東北偏東	ENE	112	16/8	19:12	東北偏東	ENE	70	16/8	20:00
將軍澳	Tseung Kwan O	東南偏東	ESE	54	16/8	18:22	東	E	20	16/8	20:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南偏東	ESE	68	17/8	01:21	東南偏東	ESE	27	17/8	01:00
							東南偏東	ESE	27	17/8	02:00
							東南偏東	ESE	27	17/8	03:00
屯門政府合署	Tuen Mun Government Offices	東南偏東	ESE	65	17/8	11:16	東南	SE	31	17/8	13:00
橫瀾島	Waglan Island	東南	SE	88	17/8	02:14	東北偏東	ENE	70	16/8	18:00
濕地公園	Wetland Park	東南偏東	ESE	52	17/8	02:24	東南偏東	ESE	27	17/8	11:00
黃竹坑	Wong Chuk Hang	東	E	68	16/8	20:19	東	E	30	17/8	03:00

平洲 - 沒有資料

Ping Chau - data not available

表 2.2.2　在啟德影響下，在熱帶氣旋警告系統的八個參考測風站所錄到持續風力達到強風及烈風程度的時段

Table 2.2.2　Periods during which sustained strong and gale force winds were reached at the 8 reference anemometers in the tropical cyclone warning system when warning signals for Kai-tak were in force

站 Station (http://www.weather.gov.hk/informtc/appendix_c.htm)		最初達到強風* 時間 First time strong wind speed* was reached		最後達到強風* 時間 Last time strong wind speed* was reached		最初達到烈風# 時間 First time gale force wind speed# was reached		最後達到烈風# 時間 Last time gale force wind speed# was reached	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	16/8	16:06	17/8	14:37	17/8	00:40	17/8	03:28
香港國際機場	Hong Kong International Airport	16/8	18:24	17/8	12:52	-			
啟德	Kai Tak	16/8	20:43	17/8	02:36	-			
西貢	Sai Kung	16/8	16:41	17/8	02:35	-			

- 未達到指定的風力

- not reaching the specified wind speed

* 十分鐘平均風力達每小時 41-62 公里

* 10-minute mean wind speed of 41- 62 km/h

十分鐘平均風力達每小時 63-87 公里

10-minute mean wind speed of 63-87 km/h

註:　本表列出持續風力最初及最後達到強風及烈風程度的時間。其間，風力可能高於或低於指定的風力。

Note: The table gives the first and last time when strong or gale force winds were recorded. Note that the winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 2.2.3　　啟德影響香港期間，香港天文台總部及其他各站所錄得的日雨量

Table 2.2.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Kai-tak

站 (參閱圖 2.2.2) Station (See Fig. 2.2.2)			八月十五日 15 Aug	八月十六日 16 Aug	八月十七日 17 Aug	總雨量(毫米) Total(mm)
香港天文台 Hong Kong Observatory			0.0	15.4	微量 Trace	15.4
香港國際機場 Hong Kong International Airport (HKA)			0.0	12.1	13.4	25.5
長洲 Cheung Chau (CCH)			0.0	10.5	6.0	16.5
N05	粉嶺	Fanling	0.0	22.0	20.0	42.0
N13	糧船灣	High Island	7.5	6.5	4.5	18.5
K04	佐敦谷	Jordan Valley	0.5	27.5	1.0	29.0
N06	葵涌	Kwai Chung	0.0	11.5	1.5	13.0
H12	半山區	Mid Levels	0.0	16.5	0.0	16.5
H21	淺水灣	Repulse Bay	0.0	25.0	0.0	25.0
N09	沙田	Sha Tin	1.0	7.5	12.5	21.0
H19	筲箕灣	Shau Kei Wan	0.0	7.0	0.0	7.0
SEK	石崗	Shek Kong	0.0	25.0	2.5	27.5
K06	蘇屋邨	So Uk Estate	0.0	22.0	2.5	24.5
R31	大美督	Tai Mei Tuk	0.0	8.0	5.5	13.5
R21	踏石角	Tap Shek Kok	0.0	18.5	0.5	19.0
N17	東涌	Tung Chung	0.0	11.5	10.5	22.0
R27	元朗	Yuen Long	0.0	22.0	0.0	22.0

表 2.2.4　　啟德影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮

Table 2.2.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Kai-tak

站 Station (http://www.weather.gov.hk/informtc/appendix_c.htm)		最高潮位（海圖基準面以上） Maximum sea level (above chart datum)			最大風暴潮（天文潮高度以上） Maximum storm surge (above astronomical tide)		
		高度(米) Height (m)	日期/月份 Date/Month	時間 Time	高度(米) Height (m)	日期/月份 Date/Month	時間 Time
鰂魚涌	Quarry Bay	2.46	17/8	07:10	0.43	16/8	22:02
石壁	Shek Pik	2.73	17/8	08:23	0.58	17/8	01:47
大廟灣	Tai Miu Wan	2.46	17/8	07:01	0.56	16/8	22:23
大埔滘	Tai Po Kau	2.47	17/8	06:42	0.59	17/8	00:46
尖鼻咀	Tsim Bei Tsui	2.89	17/8	09:43	0.60	17/8	04:57
橫瀾島	Waglan Island	2.59	17/8	07:06	0.52	16/8	21:38

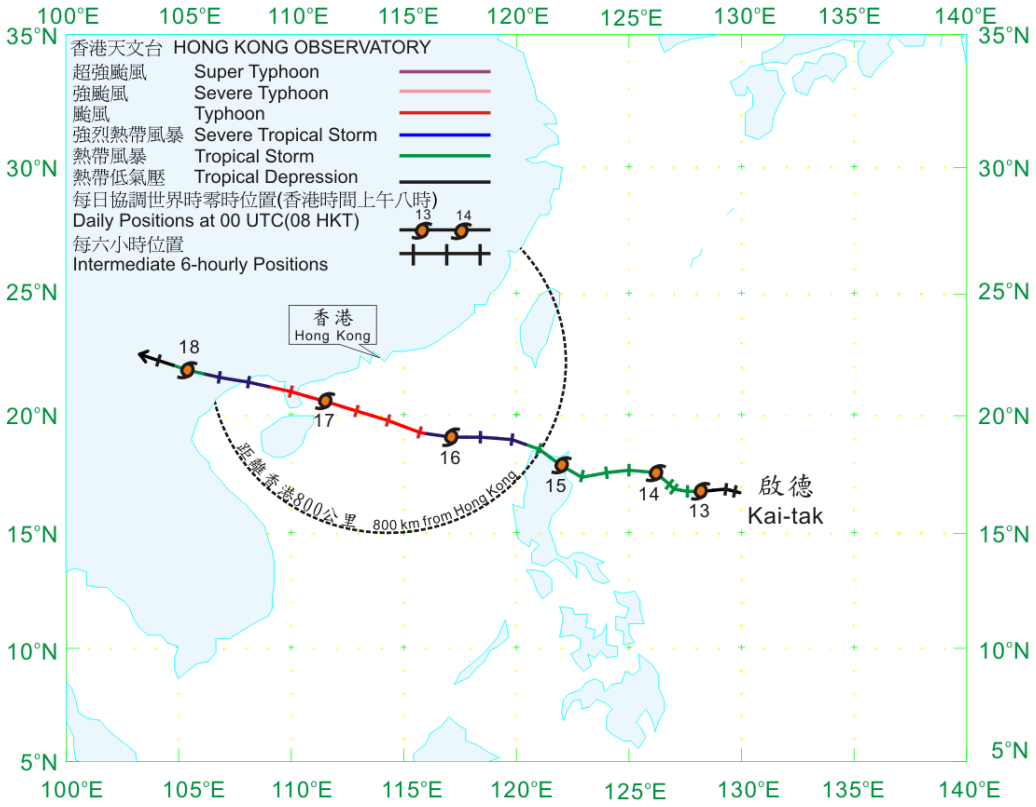


圖 2.2.1(a)　　啟德（1213）在二零一二年八月十二日至十八日的路徑圖。

Figure 2.2.1(a)　Track of Kai-tak (1213) for 12 – 18 August 2012.

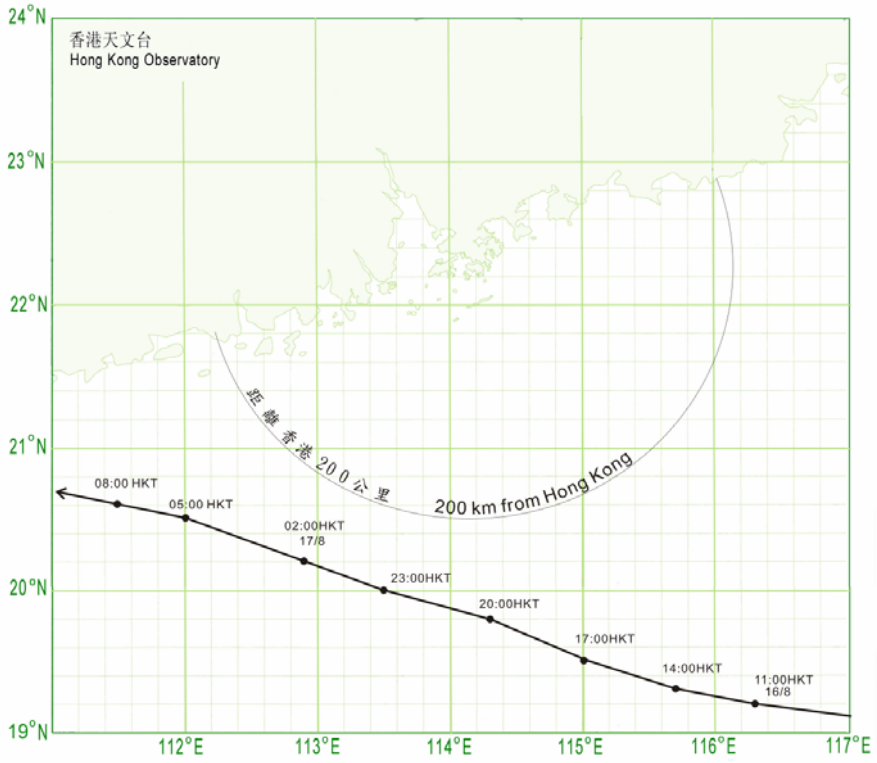


圖 2.2.1(b)　　啟德（1213）接近香港時的路徑圖。

Figure 2.2.1(b)　Track of Kai-tak (1213) near Hong Kong.

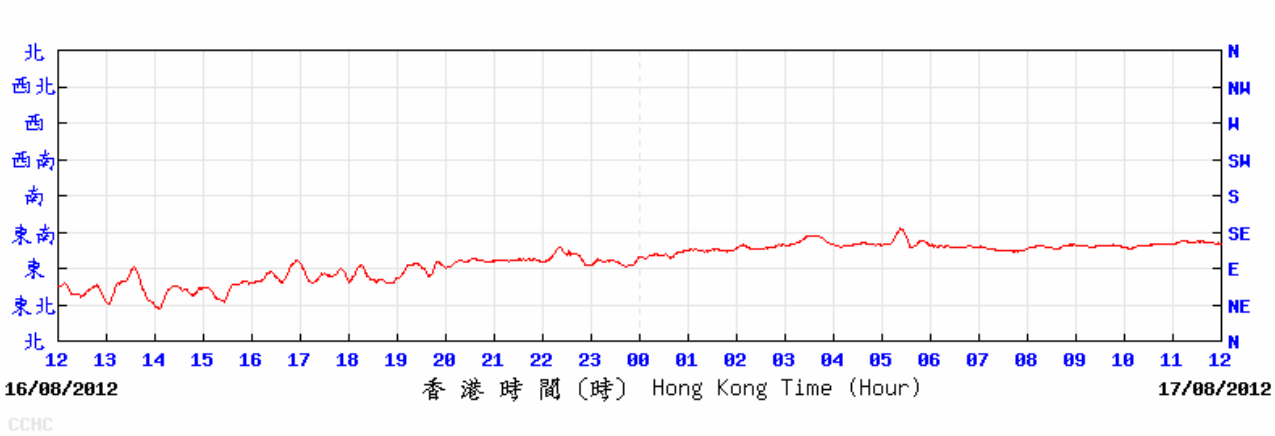


圖 2.2.2 (a)　　二零一二年八月十六日至十七日長洲自動氣象站錄得的十分鐘平均風向。

Figure 2.2.2(a)　Trace of 10-minute mean wind direction recorded at Cheung Chau automatic weather station on 16 - 17 August 2012.

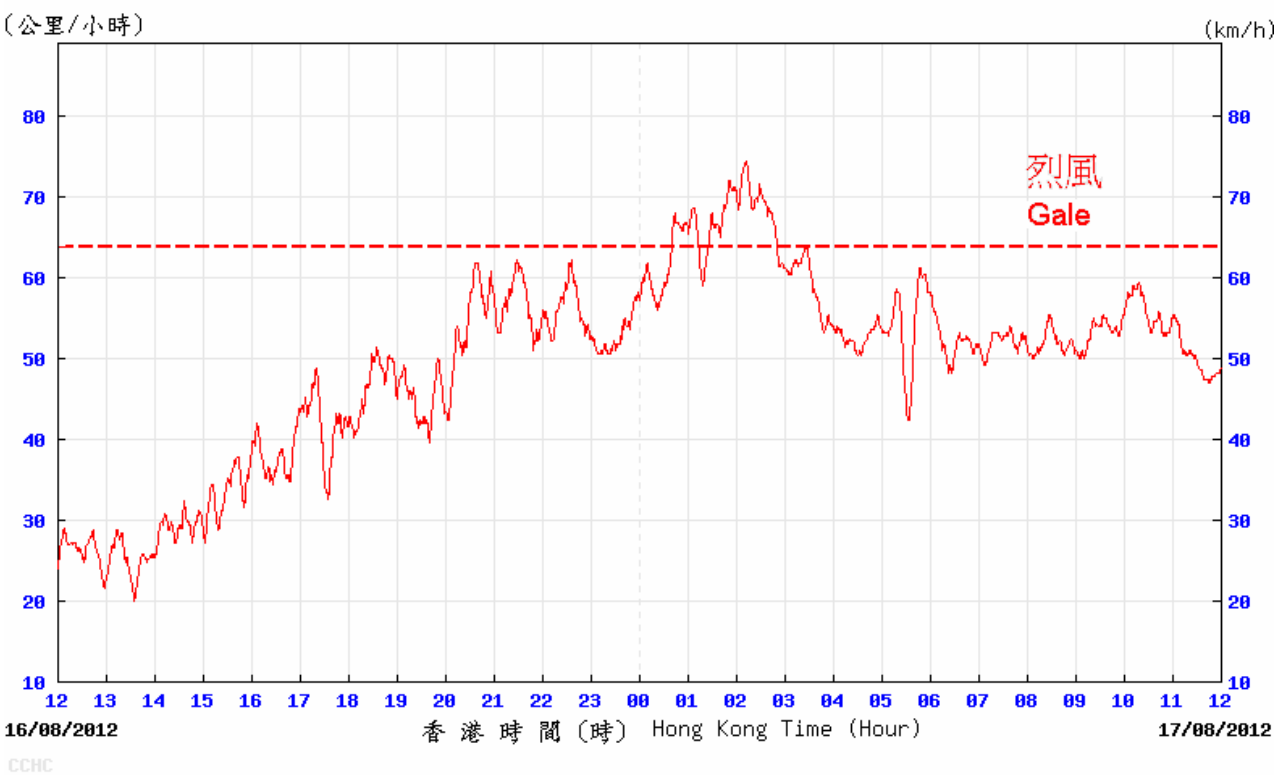


圖 2.2.2(b)　　二零一二年八月十六日至十七日長洲自動氣象站錄得的十分鐘平均風速。

Figure 2.2.2(b)　Trace of 10-minute mean wind speed recorded at Cheung Chau automatic weather station on 16 - 17 August 2012.

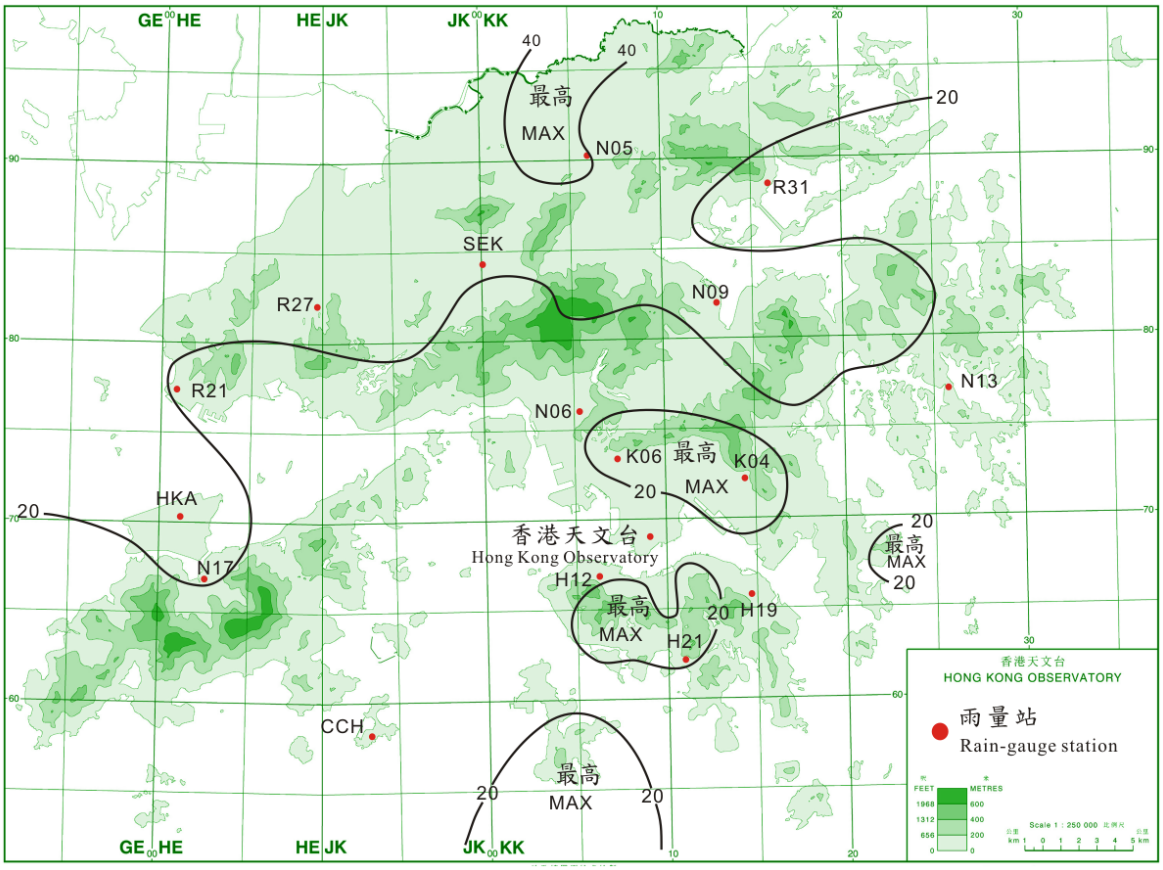


圖 2.2.3　　二零一二年八月十五日至十七日的雨量分佈(等雨量線單位為毫米)。

Figure 2.2.3　　Rainfall distribution for 15 – 17 August 2012 (isohyets are in millimetres).

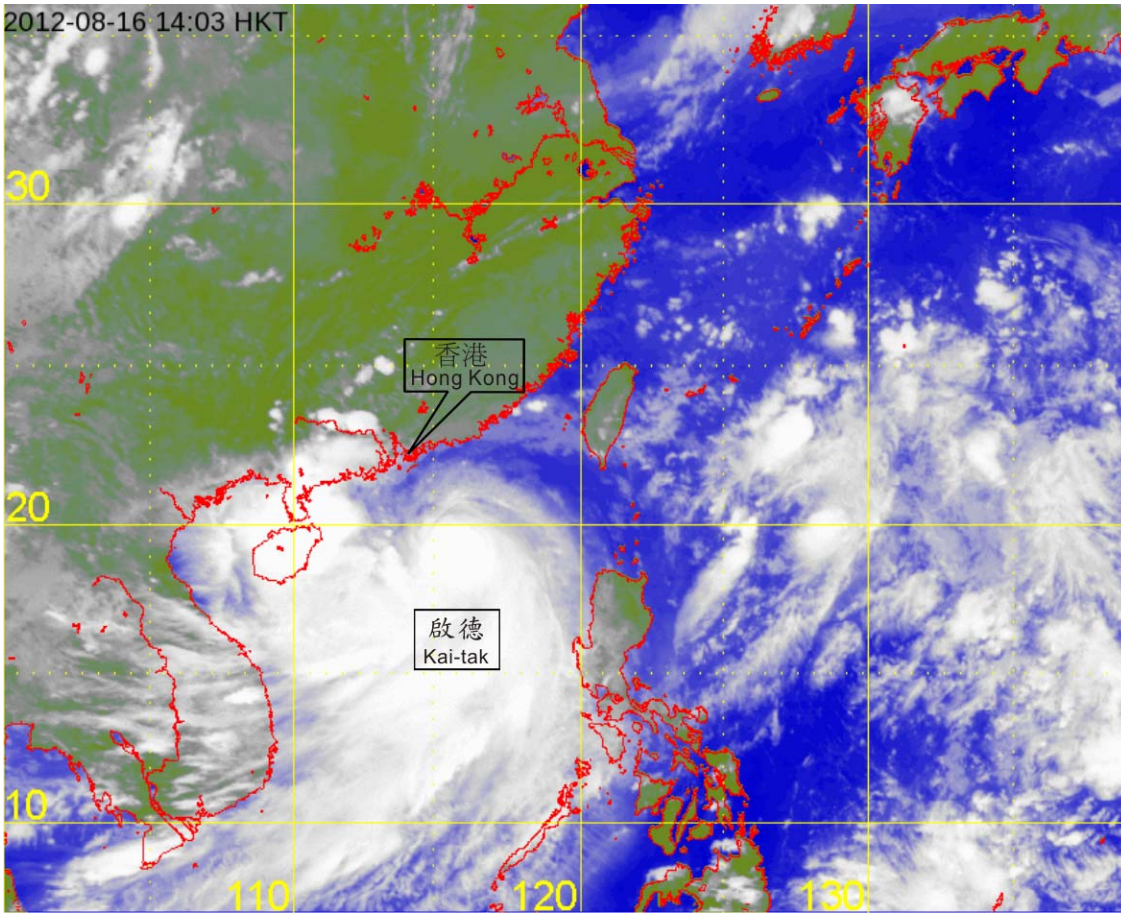


圖 2.2.4　颱風啟德在二零一二年八月十六日下午 2 時的紅外線衛星圖片，當時啟德達到其最高強度，中心附近估計最高持續風速達到每小時 120 公里，並位於香港東南偏南約 370 公里的南海北部上。

Figure 2.2.4　Infra-red satellite imagery at 2 p.m. on 16 August 2012 of Typhoon Kai-tak at its peak intensity with estimated maximum sustained winds of 120 kilometres per hour near its centre. Kai-tak was located about 370 km south-southeast of Hong Kong at that time.

〔此衛星圖像接收自日本氣象廳的多用途輸送衛星-2。〕

[The satellite imagery was originally captured by the Multi-functional Transport Satellite-2 (MTSAT-2) of Japan Meteorological Agency (JMA).]

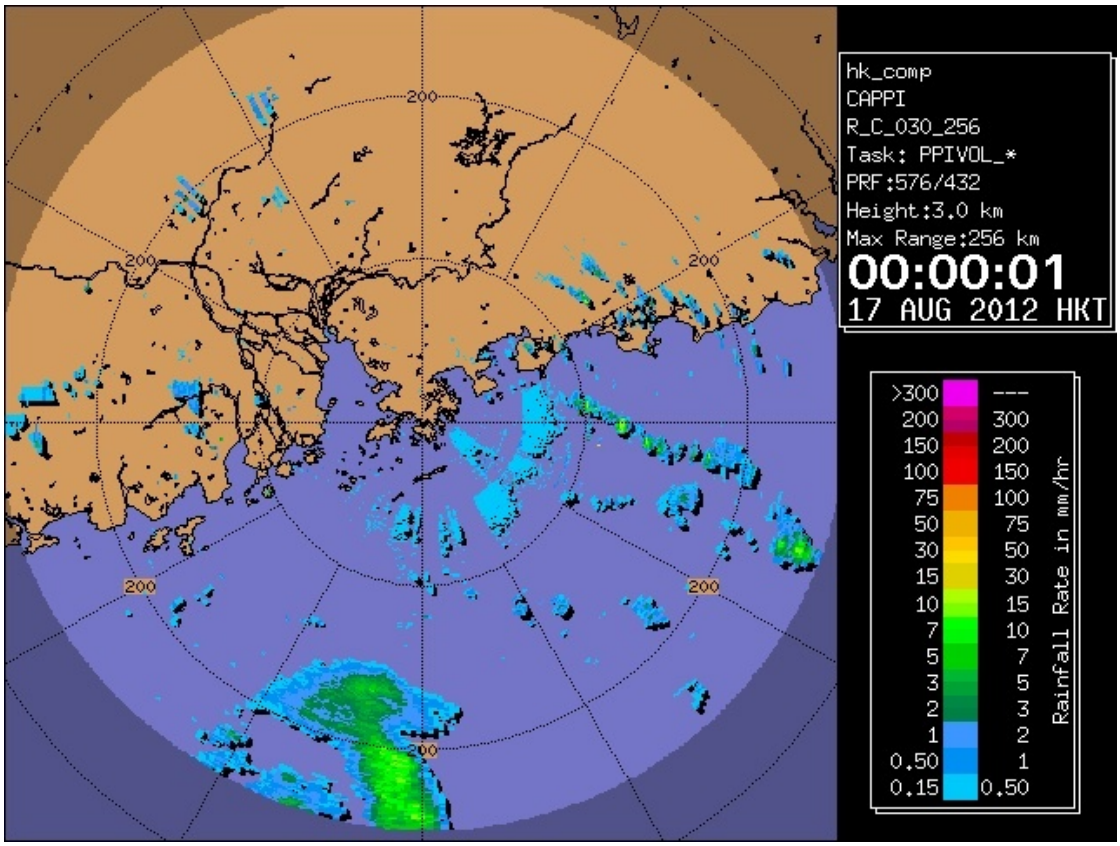


圖 2.2.5　二零一二年八月十六日午夜的雷達回波圖像，當時颱風啟德的中心集結在香港西南偏南約 260 公里，最為接近香港。

Figure 2.2.5　Radar echoes captured at midnight on 16 August 2012. The centre of Typhoon Kai-tak was at its closest to Hong Kong at about 260 km to the south-southwest of Hong Kong at that time.

2.3　強颱風天秤 (1214)
二零一二年八月十八日至三十日

天秤是香港天文台在二零一二年第五個需要發出熱帶氣旋警告信號的熱帶氣旋。

熱帶低氣壓天秤於八月十八日在馬尼拉東北約 660 公里的北太平洋西部上形成，並向西南偏南移動，翌日轉為移動緩慢，並逐漸增強為強烈熱帶風暴。天秤於八月二十日採取偏北方向移動，並逐漸增強，下午在馬尼拉東北偏北約 590 公里的太平洋上成為強颱風，當晚達到其最高強度，中心附近最高持續風力達到每小時 175 公里。它於八月二十二日轉向西移動，移向台灣及減弱為颱風，但於翌日在台灣以東的太平洋上再次增強為強颱風。天秤於八月二十四日早上橫過台灣南部，下午減弱為颱風及進入南海東北部。它於隨後兩天在南海東北部轉了一個圈，於八月二十六日從北向南掠過東沙，下午二時，東沙錄得的海平面氣壓為 968.5 百帕斯卡。受北太平洋西部的另一股熱帶氣旋布拉萬的牽引，天秤於八月二十七日轉向東北偏東移動，並於翌日向東北加速，橫過台灣以東海域及減弱為強烈熱帶風暴。它於八月二十九日向東北偏北移動，橫過東海，八月三十日早上在韓國登陸，下午減弱為熱帶風暴，黃昏時在韓國東部變為溫帶氣旋。

天秤的路徑頗為曲折，並兩次在台灣附近掠過。根據報章報導，天秤首次掠過台灣期間為當地帶來暴雨，引致最少一人死亡、五人受傷及超過130 000戶沒有電力供應。天秤於八月二十八日第二次移近台灣，導致另一人死亡、一人失蹤、11人受傷。天秤亦導致韓國兩人死亡、三人受傷及4 000戶沒有電力供應。

香港天文台於八月二十四日下午10時40分發出一號戒備信號，當時天秤位於香港以東約540公里的南海東北部上。本港吹和緩至清勁北至西北風，高地間中吹強風。天秤於八月二十五日慢慢地移近華南沿岸，於八月二十六日上午一時左右最接近香港，並在本港東南偏東約290公里處掠過。天秤於當日開始慢慢移離本港。天文台總部在下午4時26分錄得最低瞬時海平面氣壓999.6百帕斯卡，當時天秤集結在香港之東南偏東約330公里。下午天秤進一步遠離本港，天文台於下午4時40分取消所有熱帶氣旋警告信號。

天秤吹襲期間，大帽山錄得的最高每小時平均風速為 47 公里，而大老山錄得的最高陣風為每小時 70 公里。橫瀾島錄得的最高潮位(海圖基準面以上)及最大風暴潮分別為 2.52 米及 0.49 米。

受天秤相關的偏北下沉氣流影響，八月二十四日至二十六日本港天氣酷熱。八月二十五日本港有幾陣局部地區性驟雨，並錄得一兩毫米的雨量。

天秤影響香港期間，兩人在西貢海傍被大浪捲走，其中一人死亡、另一人受傷。

表2.3.1- 2.3.3 分別是天秤影響香港期間各站錄得的最高風速、香港的日雨量及最高潮位資料。圖2.3.1 – 2.3.4分別為天秤的路徑圖、本港的雨量分佈圖、天秤的衛星圖像及天秤外圍雨帶的雷達圖像。

2.3 Severe Typhoon Tembin (1214)
18 – 30 August 2012

Tembin was the fifth tropical cyclone that necessitated the issuance of a tropical cyclone warning signal by the Hong Kong Observatory in 2012.

Tembin formed as a tropical depression over the western North Pacific about 660 km northeast of Manila on 18 August and moved south-southwestwards. It became slow moving on the following day and intensified gradually into a severe tropical storm. On 20 August, Tembin took on a northerly track and continued to intensify gradually and became a severe typhoon over the Pacific about 590 km north-northeast of Manila in the afternoon. It reached its peak intensity that night with an estimated maximum sustained wind of 175 km/h near its centre. Tembin turned to move westwards towards Taiwan and weakened into a typhoon on 22 August, but strengthened again into a severe typhoon over the Pacific to the east of Taiwan on the next day. It crossed the southern part of Taiwan in the morning on 24 August, weakened into a typhoon and entered the northeastern part of the South China Sea that afternoon. Tembin looped over the northeastern part of the South China Sea on the following two days, passing close to Dongsha from north to south on 26 August, where a mean sea level pressure of 968.5 hPa was recorded at 2 p.m. Under the influence of another tropical cyclone Bolaven over the western North Pacific, Tembin turned to move east-northeastwards on 27 August, accelerated northeastwards across the seas east of Taiwan, weakening into a severe tropical storm on 28 August. Tembin then moved north-northeastwards across the East China Sea on 29 August and made landfall over the Republic of Korea in the morning on 30 August. It weakened into a tropical storm that afternoon and became an extratropical cyclone over the eastern part of the country that evening.

The track of Tembin was quite erratic. It passed close to Taiwan twice during its life history. According to press reports, Tembin brought rainstorms to Taiwan during its first passage where at least one person was killed, five people injured and about 130 000 households left without electricity. Tembin came close to Taiwan again on 28 August. Another person was killed, one missing and 11 people injured during its second passage.

Tembin also caused the death of two people, injured three others and left 4 000 households without electricity in the Republic of Korea.

In Hong Kong, the Standby Signal No. 1 was issued at 10:40 p.m. on 24 August when Tembin was over the northeastern part of the South China Sea about 540 km east of the territory. Local winds were moderate to fresh north to northwesterly winds, occasionally strong on high ground. Tembin moved slowly closer to the south China coast on 25 August and was closest to Hong Kong at around 1 a.m. on 26 August when it was passing about 290 km to the east-southeast. It started to move slowly away from Hong Kong that day. At the Hong Kong Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 999.6 hPa was recorded at 4:26 p.m. on 26 August when Tembin was about 330 km to the east-southeast. Tembin moved further away from Hong Kong that afternoon and all tropical cyclone warning signals were cancelled at 4:40 p.m.

During the passage of Tembin, a maximum hourly mean wind of 47 km/h was recorded at Tai Mo Shan, while gust of 70 km/h was recorded at Tate's Cairn. A maximum sea level (above chart datum) and maximum storm surge of 2.52 m and 0.49 m was recorded at Waglan Island respectively.

Affected by the subsiding northerly airstream associated with Tembin, it was very hot in Hong Kong from 24 to 26 August. There were a few isolated showers on 25 August, bringing a couple of millimetres of rainfall.

In Hong Kong, two people were swept away by waves in the sea front at Sai Kung. One person was killed while another was injured.

Information on the maximum wind, daily rainfall and maximum sea level reached in Hong Kong during the passage of Tembin is given in Tables 2.3.1- 2.3.3 respectively. Figures 2.3.1 – 2.3.4 show respectively the track of Tembin, the rainfall distribution for Hong Kong, a satellite imagery of Tembin and the radar imagery of the outer rainbands of Tembin.

表 2.3.1　在天秤影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 2.3.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signal for Tembin was in force

站 Station (http://www.weather.gov.hk/informtc/appendix_c.htm)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean Wind				
		風向 Direction		風速 (公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Direction		風速 (公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time
黃麻角 (赤柱)	Bluff Head (Stanley)	北	N	36	26/8	02:29	西北	NW	13	25/8	14:00
中環碼頭	Central Pier	西	W	36	25/8	13:01	西	W	22	25/8	08:00
長洲	Cheung Chau	東北偏北	NNE	47	25/8	22:45	東北偏北	NNE	30	26/8	00:00
長洲泳灘	Cheung Chau Beach	東北	NE	45	25/8	22:43	東北	NE	22	26/8	00:00
青洲	Green Island	東北偏北	NNE	54	25/8	22:59	北	N	36	26/8	10:00
香港國際機場	Hong Kong International Airport	西北偏北	NNW	36	25/8	09:46	西北偏北	NNW	31	25/8	11:00
啟德	Kai Tak	北	N	49	26/8	02:05	西北偏西	WNW	20	25/8	08:00
京士柏	King's Park	東北偏北	NNE	40	25/8	23:04	東北偏北	NNE	16	25/8	23:00
		東北	NE	40	26/8	04:13					
流浮山	Lau Fau Shan	北	N	43	25/8	23:02	西北偏西	WNW	25	25/8	18:00
昂坪	Ngong Ping	北	N	51	25/8	06:33	東北	NE	30	26/8	00:00
北角	North Point	東北偏北	NNE	38	25/8	22:51	西	W	20	25/8	16:00
坪洲	Peng Chau	北	N	47	25/8	22:32	西北	NW	25	25/8	15:00
平洲	Ping Chau	東北偏北	NNE	30	26/8	00:25	西北	NW	7	25/8	06:00
西貢	Sai Kung	北	N	47	26/8	10:55	北	N	25	26/8	11:00
沙洲	Sha Chau	西北偏北	NNW	47	25/8	09:17	北	N	31	26/8	08:00
沙螺灣	Sha Lo Wan	北	N	31	25/8	22:33	東北偏北	NNE	13	26/8	00:00
沙田	Sha Tin	東北	NE	34	26/8	12:07	北	N	14	26/8	11:00
石崗	Shek Kong	西北偏西	WNW	30	26/8	14:33	西北	NW	13	25/8	15:00
九龍天星碼頭	Star Ferry (Kowloon)	西	W	34	25/8	13:12	西	W	25	25/8	13:00
打鼓嶺	Ta Kwu Ling	北	N	27	26/8	12:51	北	N	12	26/8	12:00
大美督	Tai Mei Tuk	東北偏北	NNE	47	26/8	08:50	東北偏北	NNE	23	25/8	23:00
							東北偏北	NNE	23	26/8	00:00
大帽山	Tai Mo Shan	東北偏北	NNE	63	26/8	03:22	東北偏北	NNE	47	25/8	23:00
大埔滘	Tai Po Kau	西北偏西	WNW	36	25/8	09:52	西北	NW	16	25/8	14:00
塔門	Tap Mun	北	N	34	26/8	11:27	西北偏西	WNW	19	25/8	08:00
大老山	Tate's Cairn	西北偏北	NNW	70	26/8	02:42	北	N	45	25/8	23:00
將軍澳	Tseung Kwan O	東	E	31	26/8	05:34	北	N	13	26/8	13:00
							西北偏北	NNW	13	26/8	15:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	西北	NW	36	26/8	12:04	西北偏北	NNW	16	26/8	12:00
屯門政府合署	Tuen Mun Government Offices	西北偏西	WNW	41	25/8	12:23	西北偏西	WNW	14	25/8	14:00
橫瀾島	Waglan Island	北	N	45	26/8	06:01	北	N	38	26/8	07:00
濕地公園	Wetland Park	西北偏北	NNW	27	26/8	14:02	西北偏北	NNW	13	25/8	13:00
黃竹坑	Wong Chuk Hang	北	N	38	26/8	10:04	西北偏北	NNW	14	26/8	14:00

表 2.3.2　　天秤影響香港期間，香港天文台總部及其他各站所錄得的日雨量

Table 2.3.2　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Tembin

站 Station	八月二十四日 24 Aug	八月二十五日 25 Aug	八月二十六日 26 Aug	總雨量(毫米) Total(mm)
香港天文台 Hong Kong Observatory	0.0	微量 Trace	0.0	微量 Trace
大帽山 Tai Mo Shan	0.5	0.0	0.0	0.5
索罟灣 Sok Kwu Wan	0.0	2.5	0.0	2.5

其他各站均沒有雨量紀錄。

No rainfall was recorded at other stations.

表 2.3.3　　天秤影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮

Table 2.3.3　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Tembin

站 Station (http://www.weather.gov.hk/informtc/appendix_c.htm)		最高潮位 (海圖基準面以上) Maximum sea level (above chart datum)			最大風暴潮 (天文潮高度以上) Maximum storm surge (above astronomical tide)		
		高度 (米) Height (m)	日期/月份 Date/Month	時間 Time	高度 (米) Height (m)	日期/月份 Date/Month	時間 Time
鰂魚涌	Quarry Bay	2.29	26/8	04:27	0.34	26/8	16:35
石壁	Shek Pik	2.37	26/8	04:55	0.27	26/8	16:35
大廟灣	Tai Miu Wan	2.31	26/8	03:52	0.37	26/8	16:26
大埔滘	Tai Po Kau	2.45	26/8	05:24	0.41	26/8	16:40
尖鼻咀	Tsim Bei Tsui	2.44	26/8	03:56	0.29	26/8	07:05
橫瀾島	Waglan Island	2.52	26/8	04:38	0.49	26/8	16:07

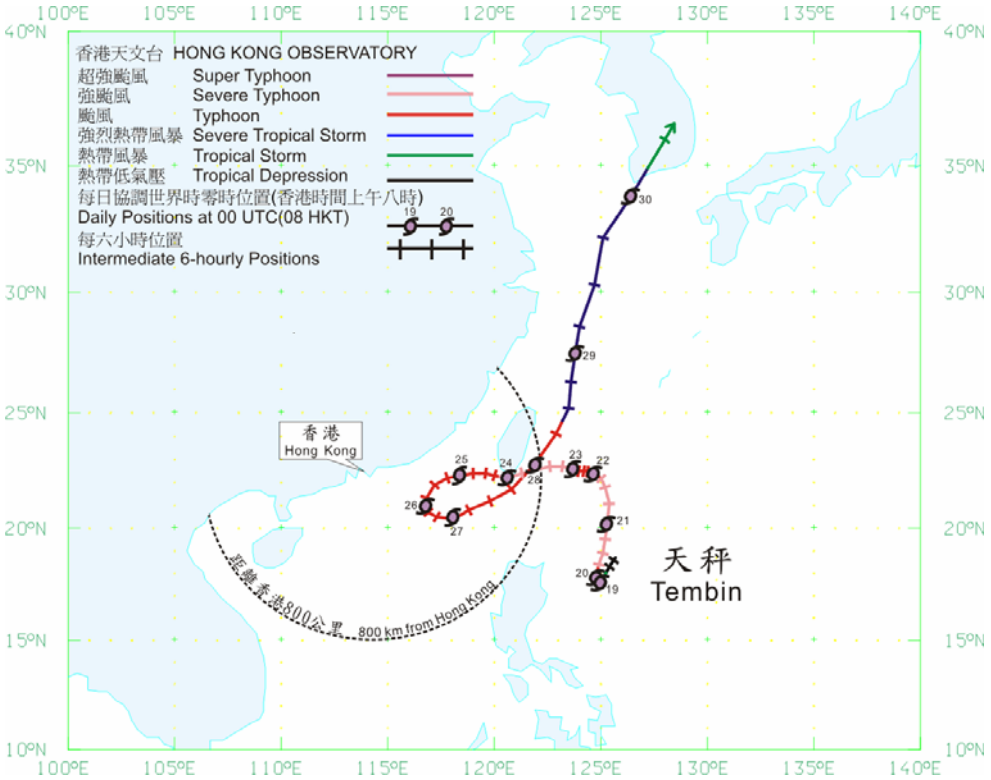


圖 2.3.1　　天秤（1214）在二零一二年八月十八日至三十日的路徑圖。

Figure 2.3.1　Track of Tembin (1214) for 18 - 30 August 2012.

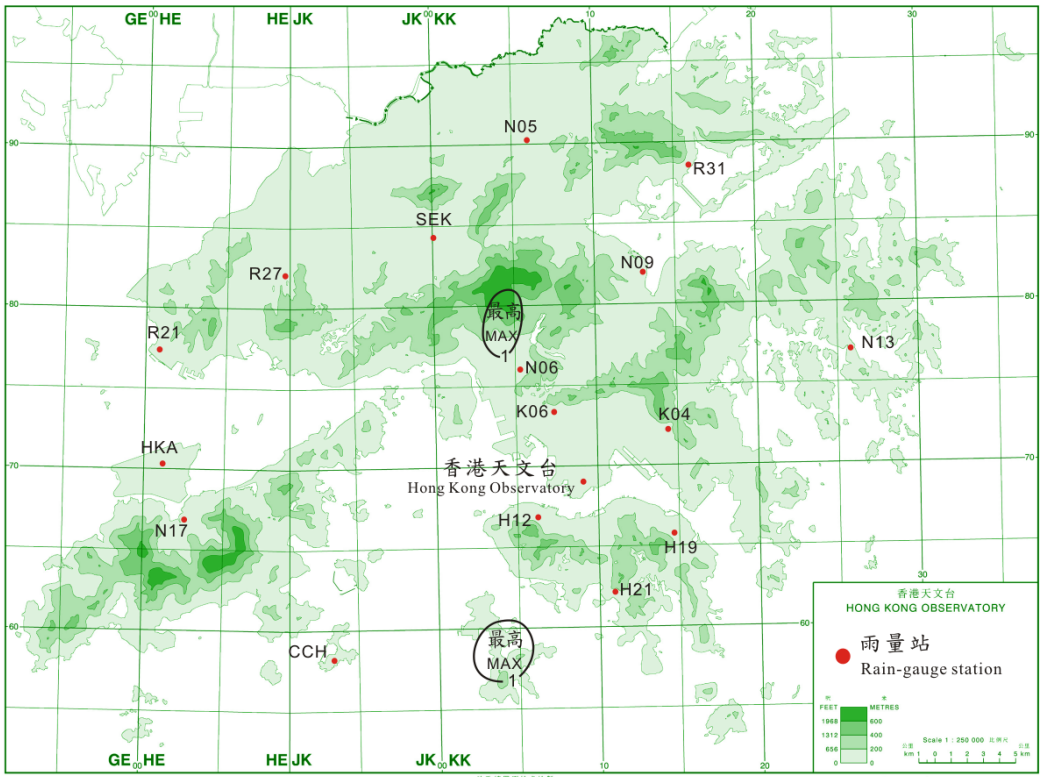


圖 2.3.2　　二零一二年八月二十四日至二十六日的雨量分佈(等雨量線單位為毫米)。

Figure 2.3.2　Rainfall distribution for 24 - 26 August 2012 (isohyets are in millimetres).

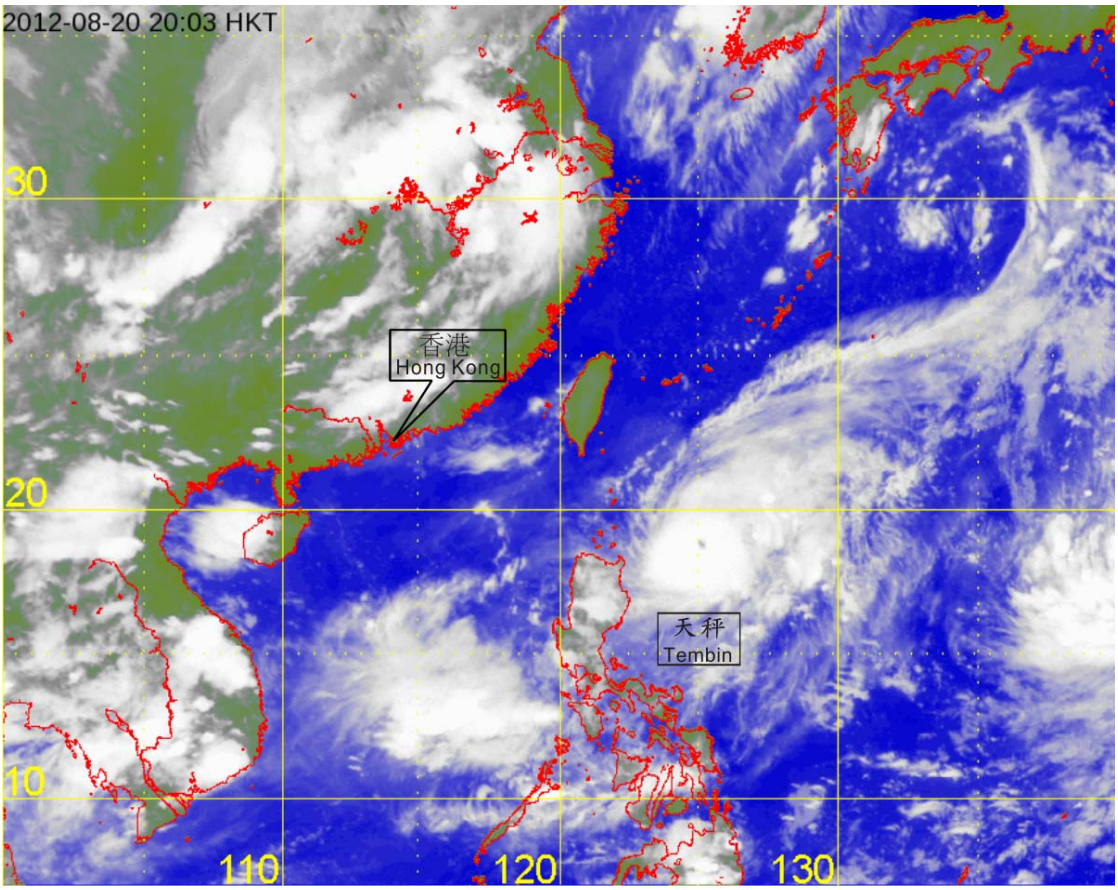


圖 2.3.3　強颱風天秤在二零一二年八月二十日下 8 時的紅外線衛星圖片，當時天秤達到其最高強度，中心附近估計最高持續風速達到每小時 175 公里。

Figure 2.3.3　Infra-red satellite imagery at 8 p.m. on 20 August 2012 of Severe Typhoon Tembin at its peak intensity with estimated maximum sustained winds of 175 kilometres per hour near its centre.

〔此衛星圖像接收自日本氣象廳的多用途輸送衛星-2。〕

[The satellite imagery was originally captured by the Multi-functional Transport Satellite-2 (MTSAT-2) of Japan Meteorological Agency (JMA).]

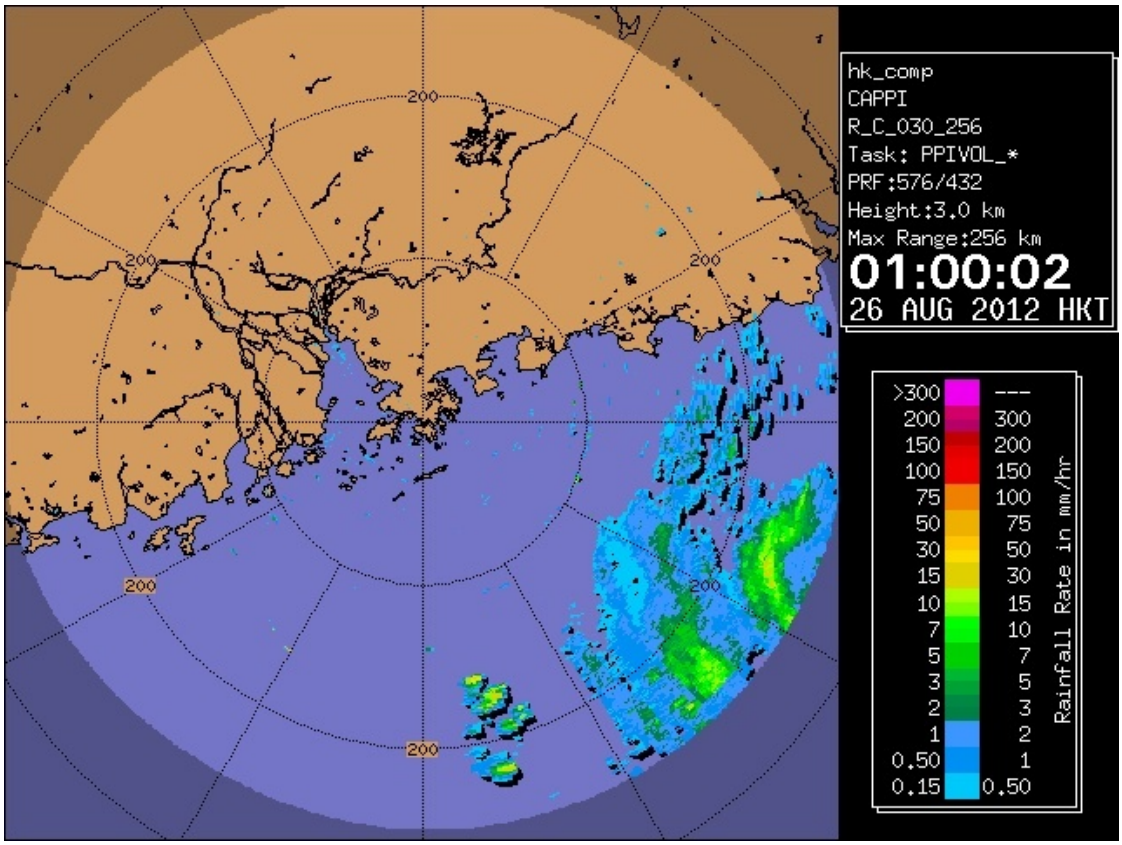
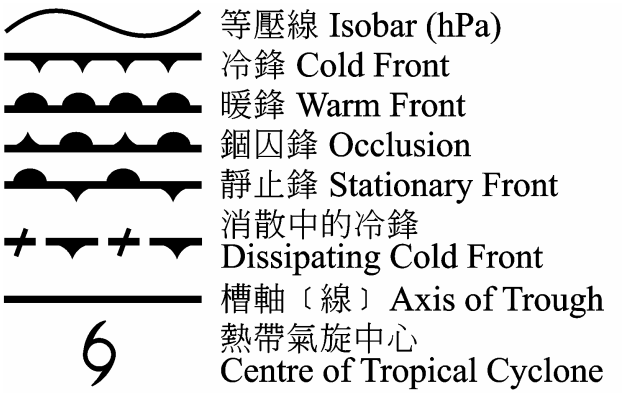
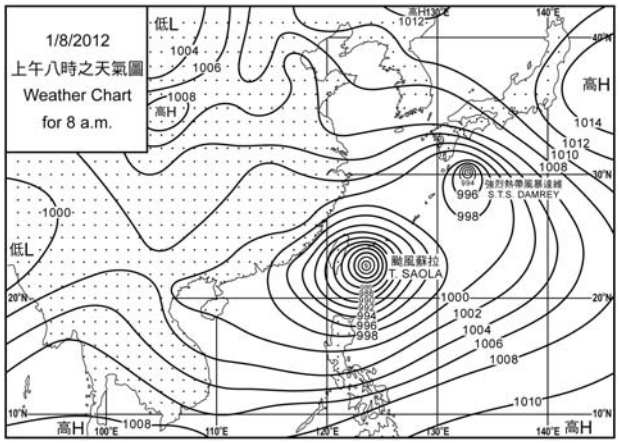


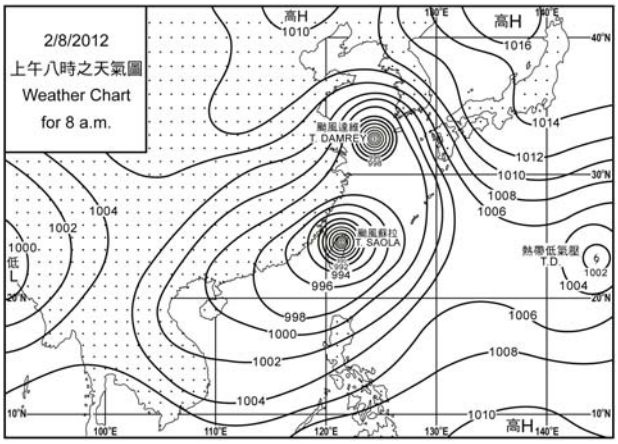
圖 2.3.4　二零一二年八月二十六日上午一時颱風天秤外圍雨帶的雷達回波圖像，當時天秤的中心集結在香港東南偏東約 290 公里，最為接近香港。

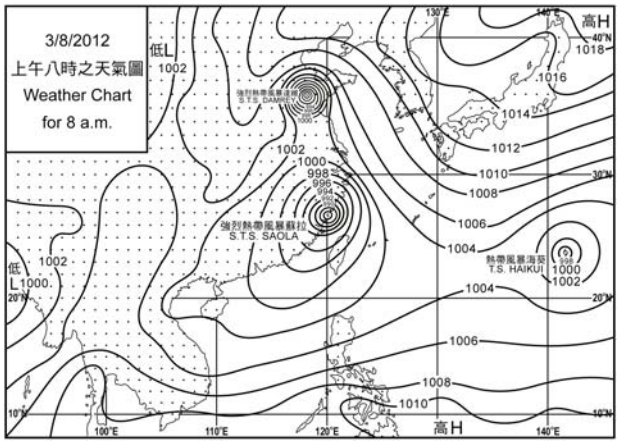
Figure 2.3.4　Radar echoes of the outer rainbands of Typhoon Tembin captured at 1 a.m. on 26 August 2012. The centre of Tembin was at its closest to Hong Kong at about 290 km to the east-southeast at that time.

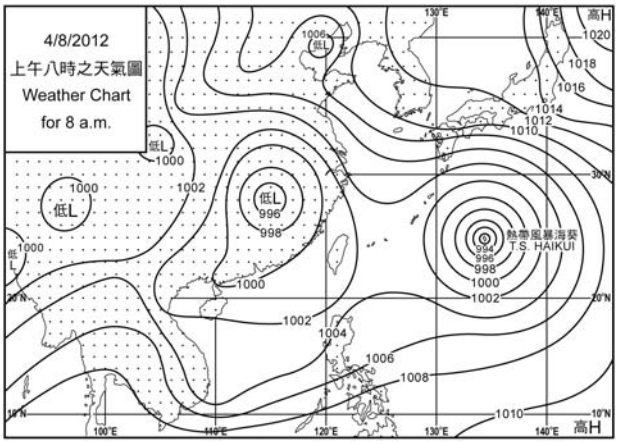
3. 二零一二年八月每日天氣圖
3. Daily Weather Maps for August 2012

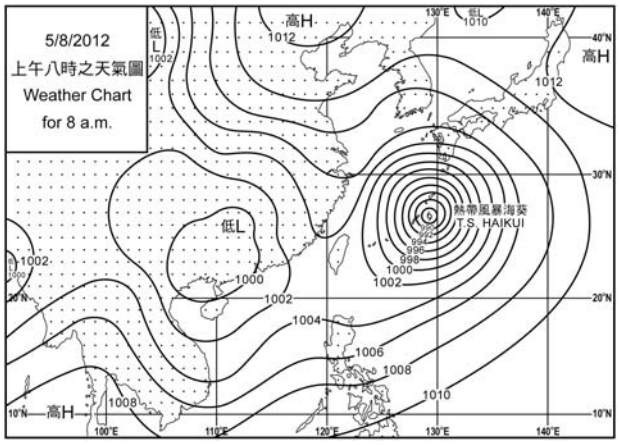


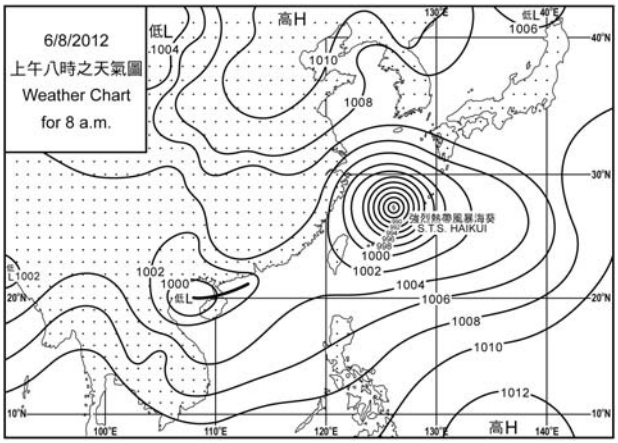


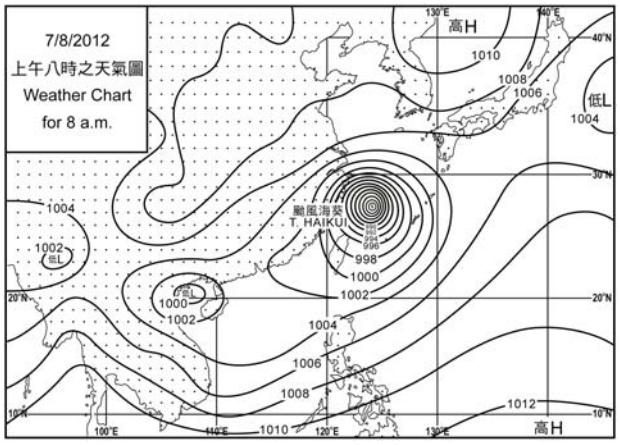


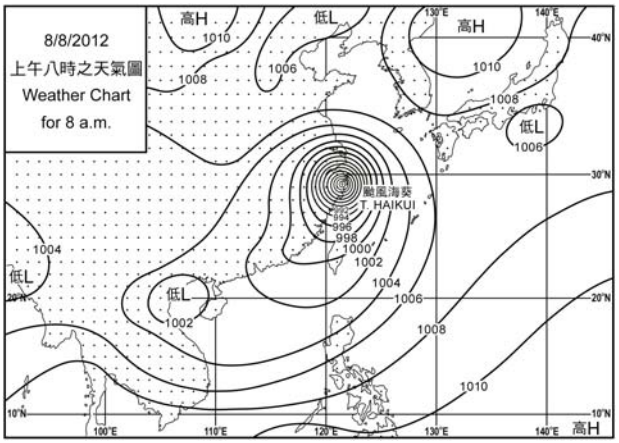


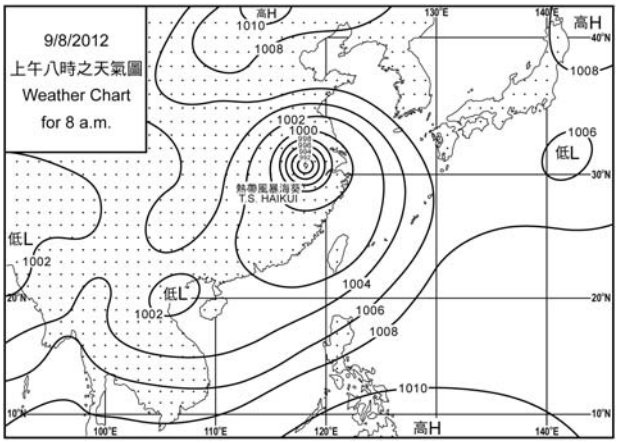


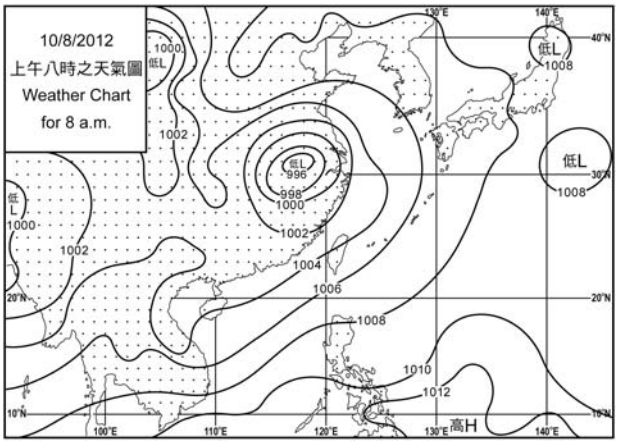


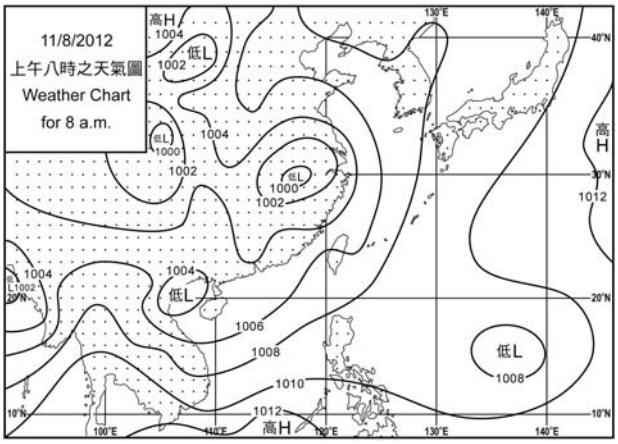


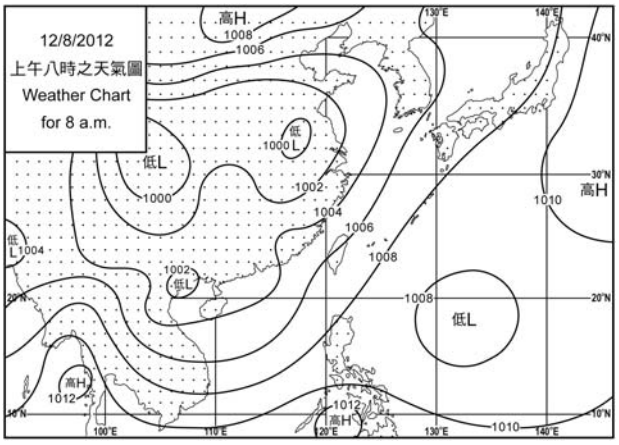


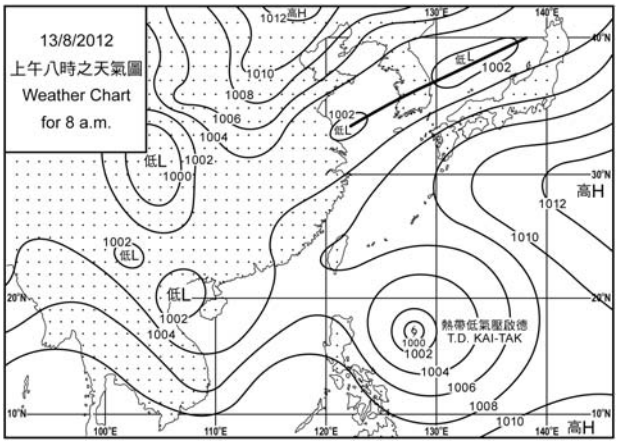

8/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風海葵
T. HAIKUI

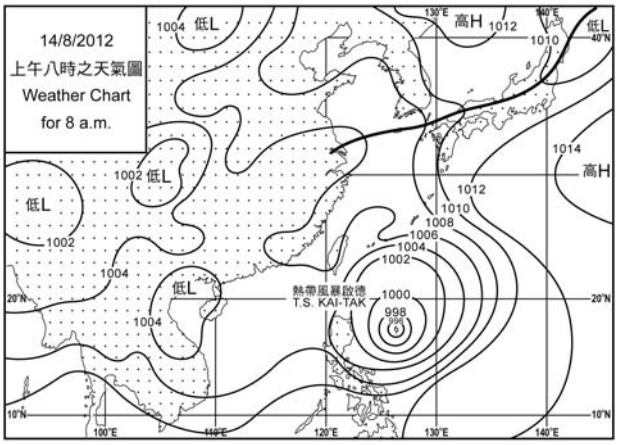

9/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴海葵
T.S. HAIKUI

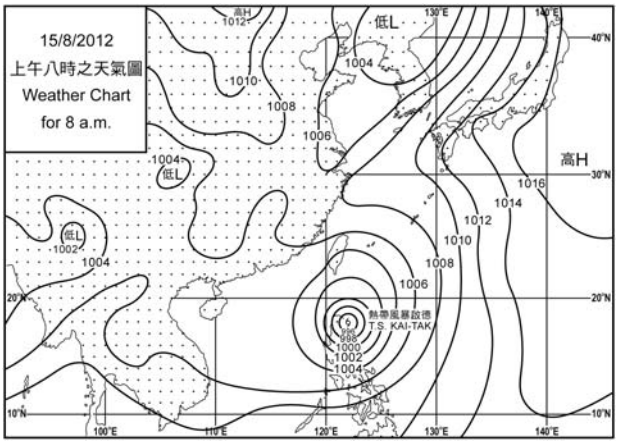

10/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.

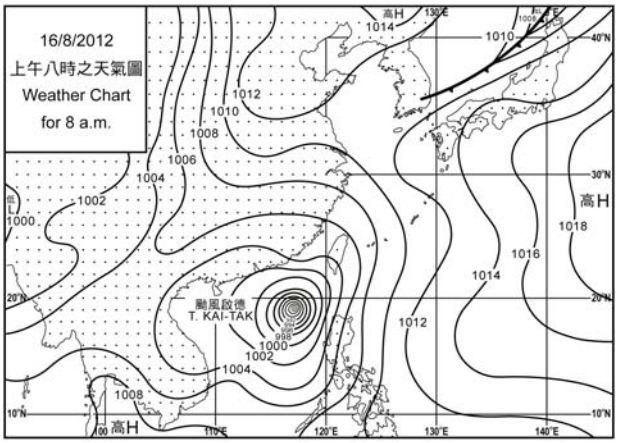

11/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.

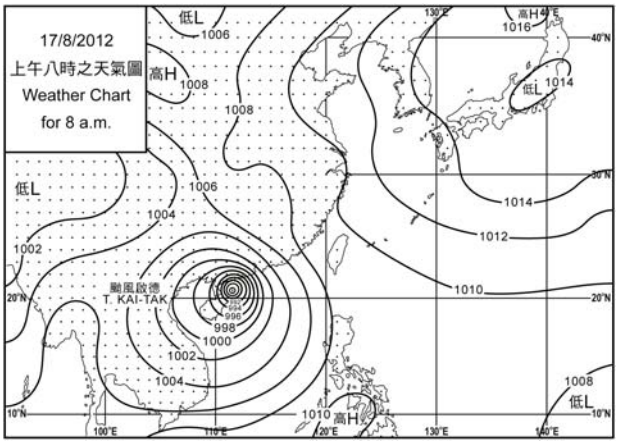

12/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.

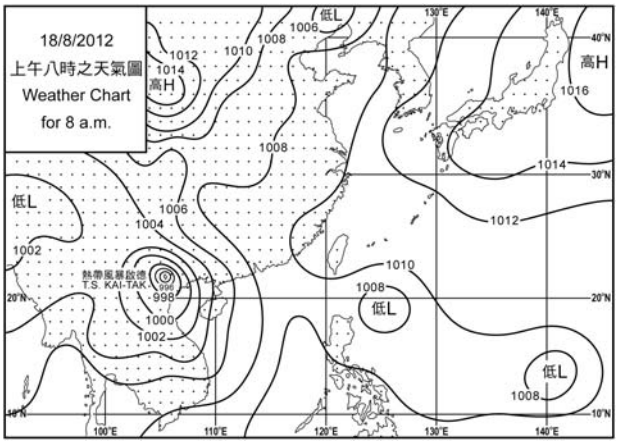

13/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶低氣壓啟德
T.D. KAI-TAK

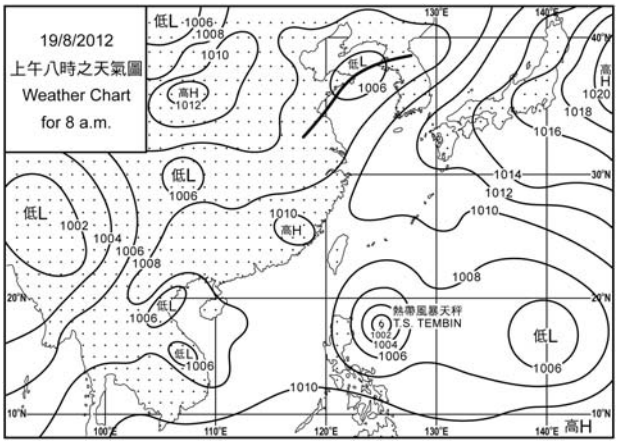

14/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴啟德
T.S. KAI-TAK

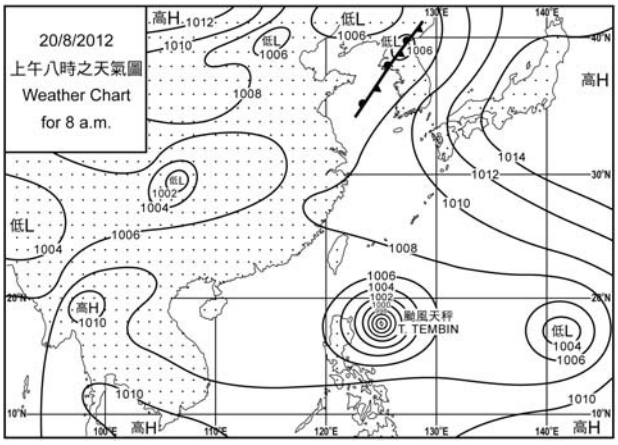

15/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴啟德
T.S. KAI-TAK

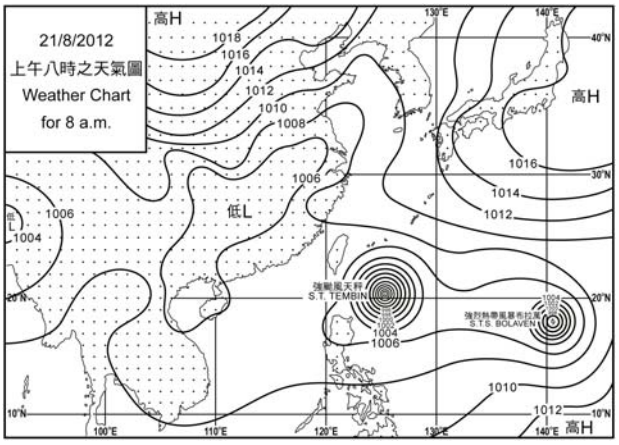

16/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風啟德
T. KAI-TAK

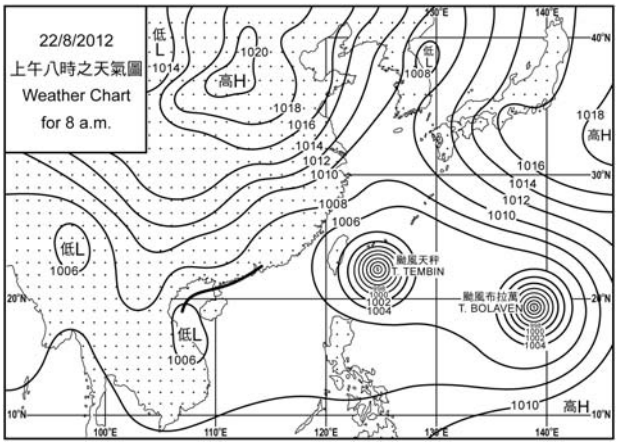

17/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風啟德
T. KAI-TAK

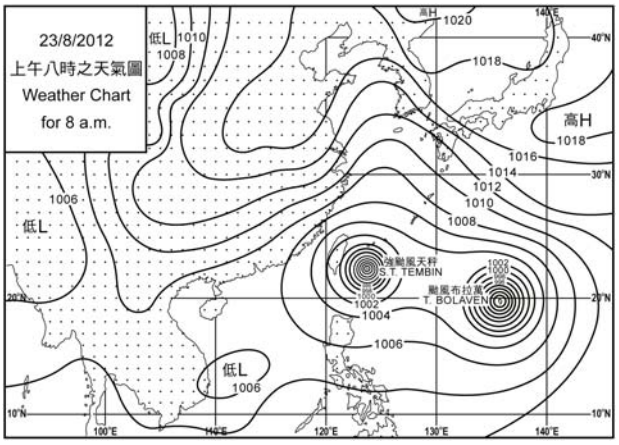

18/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴啟德
T.S. KAI-TAK

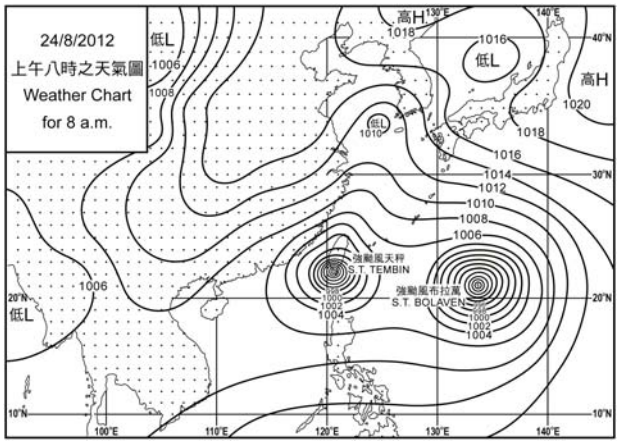

19/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴天秤
T.S. TEMBIN

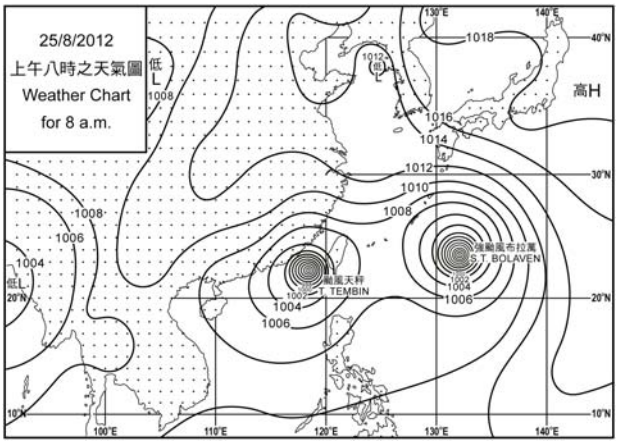

20/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風天秤
T. TEMBIN

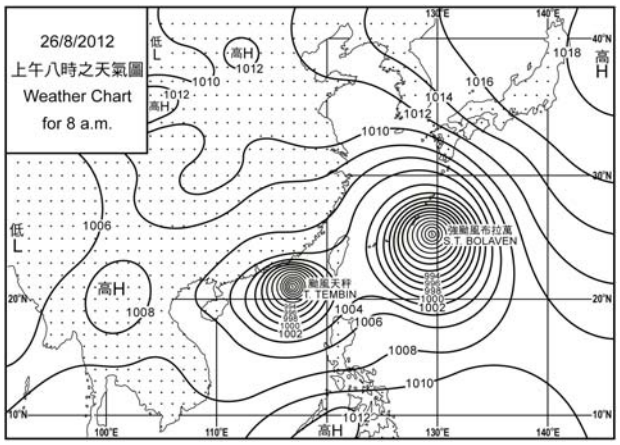

21/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
強颱風天秤
S.T. TEMBIN
強烈熱帶風暴布拉萬
S.T.S. BOLAVEN

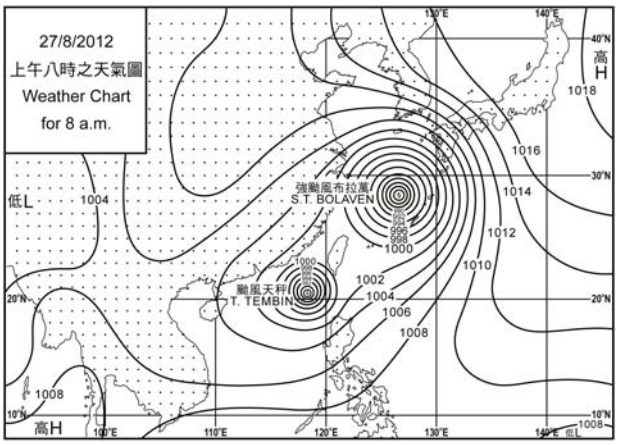

22/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風天秤
T. TEMBIN
颱風布拉萬
T. BOLAVEN

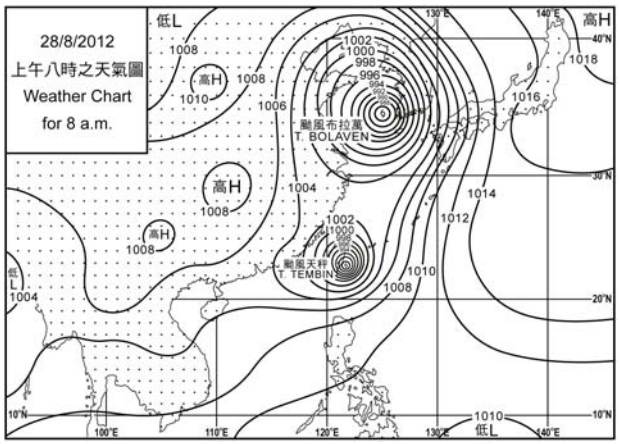

23/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
強颱風天秤
S.T. TEMBIN
颱風布拉萬
T. BOLAVEN

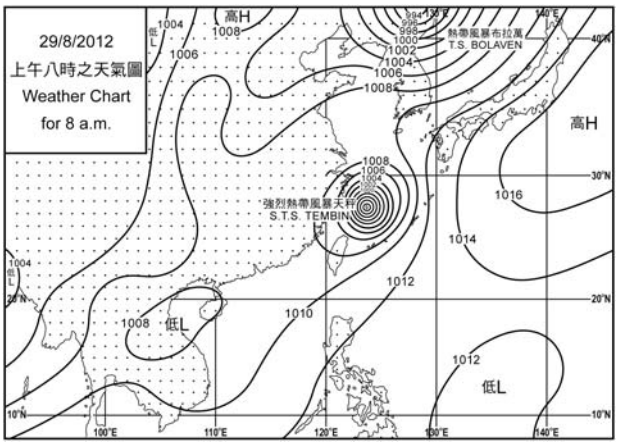

24/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
強颱風天秤
S.T. TEMBIN
強颱風布拉萬
S.T. BOLAVEN

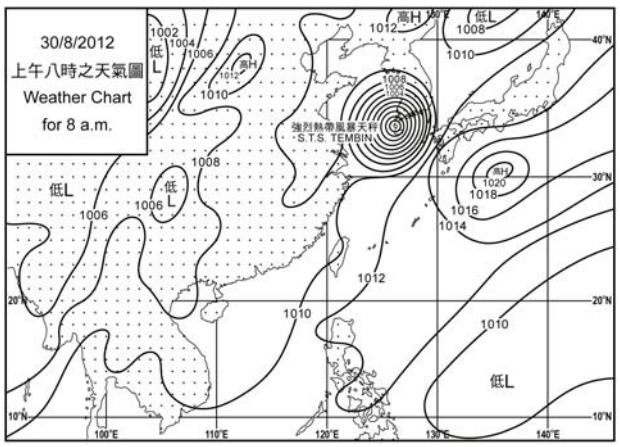

25/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風天秤
T. TEMBIN
強颱風布拉萬
S.T. BOLAVEN

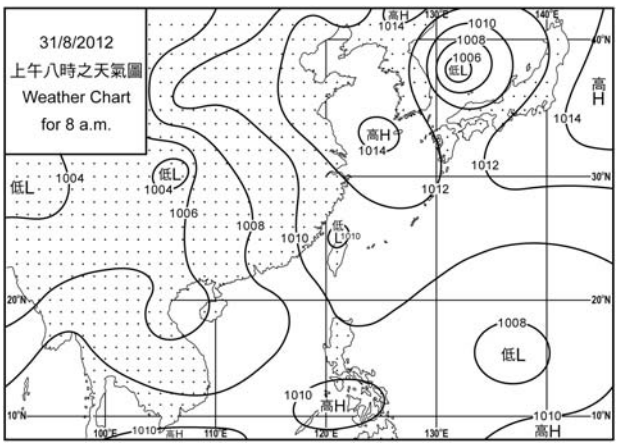

26/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風天秤
T. TEMBIN
強颱風布拉萬
S.T. BOLAVEN


27/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
強颱風布拉萬
S.T. BOLAVEN
颱風天秤
T. TEMBIN


28/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
颱風布拉萬
T. BOLAVEN
颱風天秤
T. TEMBIN


29/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
熱帶風暴布拉萬
T.S. BOLAVEN
強烈熱帶風暴天秤
S.T.S. TEMBIN


30/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.
強烈熱帶風暴天秤
S.T.S. TEMBIN


31/8/2012
上午八時之天氣圖
Weather Chart
for 8 a.m.

4.1.1 二零一二年八月香港氣象觀測摘錄(一)

4.1.1 Extract of Meteorological Observations in Hong Kong (Part 1), August 2012

日期 Date	平均氣壓 Mean Pressure	氣溫 Air Temperature 最高 Maximum	氣溫 Air Temperature 平均 Mean	氣溫 Air Temperature 最低 Minimum	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
八月 August	百帕斯卡 hPa	°C	°C	°C	°C	%	%	毫米 mm
1	997.2	33.6	30.6	27.4	25.0	73	81	0.2
2	997.1	34.1	31.8	29.3	24.4	66	55	-
3	998.4	33.0	31.0	29.6	24.4	68	78	Tr
4	998.7	30.5	29.8	29.3	26.0	80	79	0.4
5	1000.6	31.3	29.5	28.1	26.3	83	86	6.8
6	1002.2	32.5	29.0	25.3	25.8	84	74	2.8
7	1000.9	32.9	30.0	27.4	25.6	78	55	Tr
8	999.9	33.4	30.5	28.6	25.8	77	65	-
9	1000.9	34.3	30.5	28.5	25.2	74	36	-
10	1003.0	32.0	29.6	27.0	25.2	77	72	7.7
11	1004.2	29.5	27.6	25.5	25.1	86	84	64.7
12	1003.3	29.6	27.7	25.1	25.3	87	87	12.4
13	1003.3	30.1	27.8	26.4	25.6	88	86	9.5
14	1004.8	31.9	28.4	26.7	25.7	85	54	1.9
15	1003.9	33.7	30.0	27.2	25.5	77	43	-
16	1001.5	32.6	28.6	25.8	25.5	84	86	15.4
17	1004.7	29.7	28.2	26.8	25.3	85	88	Tr
18	1008.6	32.6	29.4	28.0	25.8	81	88	0.1
19	1008.1	32.0	29.2	27.6	24.9	78	67	-
20	1006.3	32.9	29.5	27.5	24.8	76	51	-
21	1006.4	31.6	29.1	27.8	25.0	79	63	Tr
22	1006.3	28.9	28.0	26.6	24.5	81	80	5.1
23	1006.0	31.8	28.9	26.6	24.0	75	53	-
24	1005.0	32.8	29.9	27.3	23.7	70	59	-
25	1003.6	33.4	30.1	27.8	22.5	64	84	Tr
26	1001.3	32.8	30.5	28.9	21.9	60	87	-
27	1001.4	33.4	30.8	28.6	21.9	59	76	-
28	1004.3	34.5	31.0	28.9	25.5	74	50	-
29	1007.2	31.8	29.4	26.7	24.7	76	74	2.4
30	1007.2	33.3	30.1	28.6	25.5	77	77	Tr
31	1007.6	30.9	28.5	26.0	25.8	85	80	20.4
平均/總值 Mean/Total	1003.3	32.2	29.5	27.4	24.9	77	71	149.8
正常* Normal*	1005.2	31.1	28.6	26.6	25.0	81	69	432.2
觀測站 Station	天文台 Hong Kong Observatory							

天文台於八月一日 16 時 42 分錄得本月最低氣壓 995.0 百帕斯卡。
The minimum pressure recorded at the Hong Kong Observatory was 995.0 hectopascals at 1642 HKT on 1 August.

天文台於八月二十八日 13 時 1 分錄得本月最高氣溫 34.5 °C。
The maximum air temperature recorded at the Hong Kong Observatory was 34.5 °C at 1301 HKT on 28 August.

天文台於八月十二日 6 時 15 分錄得本月最低氣溫 25.1 °C。
The minimum air temperature recorded at the Hong Kong Observatory was 25.1 °C at 0615 HKT on 12 August.

天文台於八月十一日 4 時 22 分錄得本月最高瞬時降雨率 166 毫米/小時。
The maximum instantaneous rate of rainfall recorded at the Hong Kong Observatory was 166 millimetres per hour at 0422 HKT on 11 August.

* 1981-2010 氣候平均值（除特別列明外） *(http://www.hko.gov.hk/wxinfo/climat/normal/cnormal08.htm)*

* 1981-2010 Climatological normal, unless otherwise specified *(http://www.hko.gov.hk/wxinfo/climat/normal/enormal08.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 二零一二年八月香港氣象觀測摘錄(二)

4.1.2 Extract of Meteorological Observations in Hong Kong (Part 2), August 2012

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
八月 August	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	5	7.4	21.02	5.3	280	14.7
2	7	10.7	21.02	6.7	230	16.0
3	7	3.4	12.13	3.3	250	14.0
4	6	-	6.41	2.0	240	20.0
5	1	1.0	12.02	4.0	230	18.8
6	0	6.9	18.66	5.3	120	10.0
7	4	8.9	20.13	5.5	230	15.0
8	6	9.7	20.70	5.7	270	20.7
9	0	10.5	23.07	6.4	240	26.7
10	0	4.0	15.10	6.2	230	26.4
11	0	1.0	6.39	1.5	230	20.8
12	0	1.3	11.13	3.0	210	16.3
13	0	1.5	9.24	2.1	230	11.0
14	0	7.9	19.70	4.2	110	10.4
15	2	8.3	17.72	3.5	360	5.3
16	0	4.9	15.48	5.2	070	36.2
17	0	1.2	8.66	3.9	130	37.8
18	0	4.4	17.46	1.4	170	16.0
19	0	8.4	21.67	5.9	230	10.2
20	0	10.3	23.66	5.9	210	11.7
21	0	5.9	17.45	4.6	230	11.5
22	0	0.3	7.63	2.6	280	10.6
23	7	9.4	19.64	5.0	340	6.1
24	2	10.0	21.24	6.7	010	13.3
25	0	4.4	15.99	6.1	360	16.3
26	0	2.2	14.13	5.9	010	26.8
27	0	9.7	20.14	5.3	280	16.3
28	9	10.0	20.17	6.0	230	21.5
29	1	7.1	18.99	5.1	230	18.9
30	0	6.1	17.53	6.0	220	14.0
31	0	6.4	16.12	2.8	120	12.5
平均/總值 Mean/Total	57	183.2	16.46	143.1	230	17.0
正常* Normal*	58.1 §	188.9	15.63	134.9	230	19.4
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	

橫瀾島於八月十七日 2 時 14 分錄得本月最高陣風 88 公里/小時，風向 130 度。

The maximum gust peak speed recorded at Waglan Island was 88 kilometres per hour from 130 degrees at 0214 HKT on 17 August.

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/cnormal08.htm)*

* 1981-2010 Climatological normal, unless otherwise specified *(http://www.hko.gov.hk/wxinfo/climat/normal/enormal08.htm)*

§ 1997-2011 平均值

§ 1997-2011 Mean value

4.2 二零一二年八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, August 2012