

每月天氣摘要 二零一四年七月

Monthly Weather Summary July 2014

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二零一四年八月出版

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1. 二零一四年七月天氣回顧

由於二零一四年七月大部分時間華南上空受副熱帶高壓脊所影響，加上熱帶氣旋經過東海時為本港帶來內陸氣流，本月平均氣溫錄得破紀錄的 29.8 度，平均最低氣溫 27.6 度亦平了七月份的記錄，而平均最高氣溫 32.6 度則為七月份其中一個第二高紀錄。此外，本月較正常多陽光及雨量偏少，月總雨量為 260.5 毫米，較七月份正常的 376.5 毫米少約百分之 31。而本年至七月底累積雨量為 1763.9 毫米，較同期正常數值 1473.3 毫米多約百分之 20。

本月首天大致多雲及局部地區有雷雨。受華南沿岸一股和緩西南季候風的影響，本港於七月二日至十六日持續夾雜陽光和驟雨的天氣。在較多陽光的日子，本港天氣酷熱，日間氣溫超過 33 度。當超強颱風浣熊於七月八日及九日經過東海時，酷熱感覺尤其強烈。此外，本港亦有部分時間較多雲量及驟雨，其中以七月七日及十一日的驟雨最為顯著。

同時，強颱風威馬遜於七月十六日橫過呂宋，並靠近華南沿岸。本地風勢於翌日逐漸增強，天氣亦轉為多雲，並有驟雨及狂風雷暴。威馬遜在七月十八日早上進一步增強為超強颱風，並在海南島北部文昌市附近登陸。本港當日風勢進一步增強，間中有大驟雨及狂風雷暴。隨著威馬遜遠離本港及橫過廣西沿岸後逐漸減弱，七月十九日本港風勢逐漸緩和，部分時間有陽光及有幾陣驟雨。

受中國東南部上空的反氣旋影響，本港於七月二十及二十一日除有幾陣驟雨外，陽光充沛及天氣炎熱。隨著颱風麥德姆於其後兩天橫過台灣並移入中國東南部，一股內陸氣流為本港帶來晴朗及酷熱的天氣。高溫天氣於七月二十二日下午亦引發幾陣大驟雨及狂風雷暴。緊隨颱風麥德姆之後，西南季候風於七月二十三及二十四日增強。本港天氣於七月二十三至二十七日夾雜著陽光及雷雨，屯門以西水域於七月二十五日早上出現漏斗雲。

一道高壓脊伸展至華南，為本港帶來大致晴朗及酷熱的天氣。天文台於七月二十九日的氣溫上升至最高的 34.2 度，為本月最高氣溫。隨著熱帶風暴娜基莉橫過台灣以東海域，本港天氣於本月後期持續酷熱。

本月有五個熱帶氣旋影響南海及北太平洋西部。

本月有十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。

1. The Weather of July 2014

Under the dominance of a subtropical ridge over southern China for most part of the month, and with episodes of continental air flow brought by passages of tropical cyclones over the East China Sea, July 2014 emerged as the hottest July in Hong Kong with a record-breaking monthly mean temperature of 29.8 degrees. The monthly mean minimum temperature of 27.6 degrees equalled the July record, while the monthly mean maximum temperature of 32.6 degrees also ranked as one of the second highest for July. The month was relatively sunny and drier than usual with a monthly rainfall amount of 260.5 millimetres, about 31 percent below the July normal of 376.5 millimetres. The accumulated rainfall since 1 January was 1763.9 millimetres, about 20 percent above the normal of 1473.3 millimetres for the same period.

The weather started off with mainly cloudy weather and isolated thundery showers in Hong Kong. As a moderate southwest monsoon prevailed over the south China coast, the weather was a mixture of sunshine and showers up to 16 July. On days with more sunshine, daytime conditions became very hot with temperatures exceeding 33 degrees. The intense heat was most keenly felt during the passage of Super Typhoon Neoguri over the East China Sea on 8 and 9 July. There were also occasional days with cloudier and more showery weather, most noticeably on 7 and 11 July.

Meanwhile, Severe Typhoon Rammasun swept past Luzon on 16 July and edged closer to the south China coast. Local winds strengthened gradually and the weather became cloudy with showers and squally thunderstorms the next day. Rammasun further developed into a super typhoon on the morning of 18 July and made landfall near Wenchang over the northern part of Hainan Island. Local winds strengthened further with occasional heavy showers and squally thunderstorms that day. With Rammasun moving away and weakening gradually after crossing the coast of Guangxi, local winds subsided gradually and there were sunny periods with a few showers on 19 July.

With the establishment of an anticyclone over southeastern China, it was sunny and hot apart from a few showers on 20 and 21 July. As Typhoon Matmo swept past Taiwan and moved into southeastern China over the next couple of days, Hong Kong was affected by a continental airstream that brought fine and very hot weather to the territory. The high temperatures also triggered some heavy showers and squally thunderstorms in the afternoon on 22 July. The southwest monsoon was enhanced in the wake of Typhoon Matmo on 23 and 24 July, while local weather was a mix of sunny periods and thundery showers up to 27 July, with a funnel cloud observed over the waters west of Tuen Mun in the morning on 25 July.

A ridge of high pressure then extended over southern China and maintained generally

fine and very hot weather in Hong Kong, with temperatures at the Hong Kong Observatory rising to a maximum of 34.2 degrees on 29 July, the highest of the month. With Tropical Storm Nakri passing to the east of Taiwan, very hot conditions were maintained in Hong Kong till the end of the month.

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

During the month, ten aircrafts were 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 二零一四年七月發出的警告及信號
Table 1.1 Warnings and Signals issued in July 2014

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
		威馬遜 RAMMASUN	1 3 1	16/7 17/7 18/7	2340 1615 1940

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	22/7	1550	22/7	1700
黃色 Amber	24/7	2215	24/7	2315

酷熱天氣警告

Very Hot 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
2/7	1135	2/7	1830
3/7	0645	7/7	1130
8/7	1025	10/7	1830
12/7	1350	16/7	1930
22/7	0645	23/7	2300
25/7	1350	25/7	1800
28/7	1145	1/8	2015

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
1/7	0540	1/7	0930	1/7	1525	1/7	2000
1/7	2110	1/7	2215	2/7	0630	2/7	0730
5/7	1055	5/7	1200	5/7	1715	5/7	1815
6/7	0700	6/7	1100	7/7	0400	7/7	0830
7/7	1100	7/7	1500	8/7	1130	8/7	1500
8/7	1650	8/7	1800	9/7	1235	9/7	1430
10/7	0020	10/7	0155	10/7	0730	10/7	1200
10/7	1420	10/7	1530	11/7	0215	11/7	0300
11/7	0425	11/7	0730	11/7	1000	11/7	1100
11/7	1110	11/7	1215	11/7	1400	11/7	1500
12/7	0600	12/7	1100	12/7	1400	12/7	1930
12/7	2040	12/7	2245	13/7	0850	13/7	1630
14/7	0615	14/7	0845	14/7	1000	14/7	1130
14/7	1240	14/7	1345	15/7	0500	15/7	0600
17/7	0720	17/7	0900	17/7	1130	17/7	2230
17/7	2330	18/7	0130	18/7	0525	18/7	0630
18/7	0920	18/7	1730	19/7	0830	19/7	1030
19/7	2305	20/7	0015	20/7	0235	20/7	0700
21/7	1445	21/7	1545	22/7	1355	22/7	1715
23/7	0635	23/7	0745	24/7	0725	24/7	0930
24/7	2145	25/7	0030	25/7	1025	25/7	1230
26/7	0715	26/7	1315	26/7	2225	27/7	0015
27/7	0200	27/7	0900	27/7	1050	27/7	1430

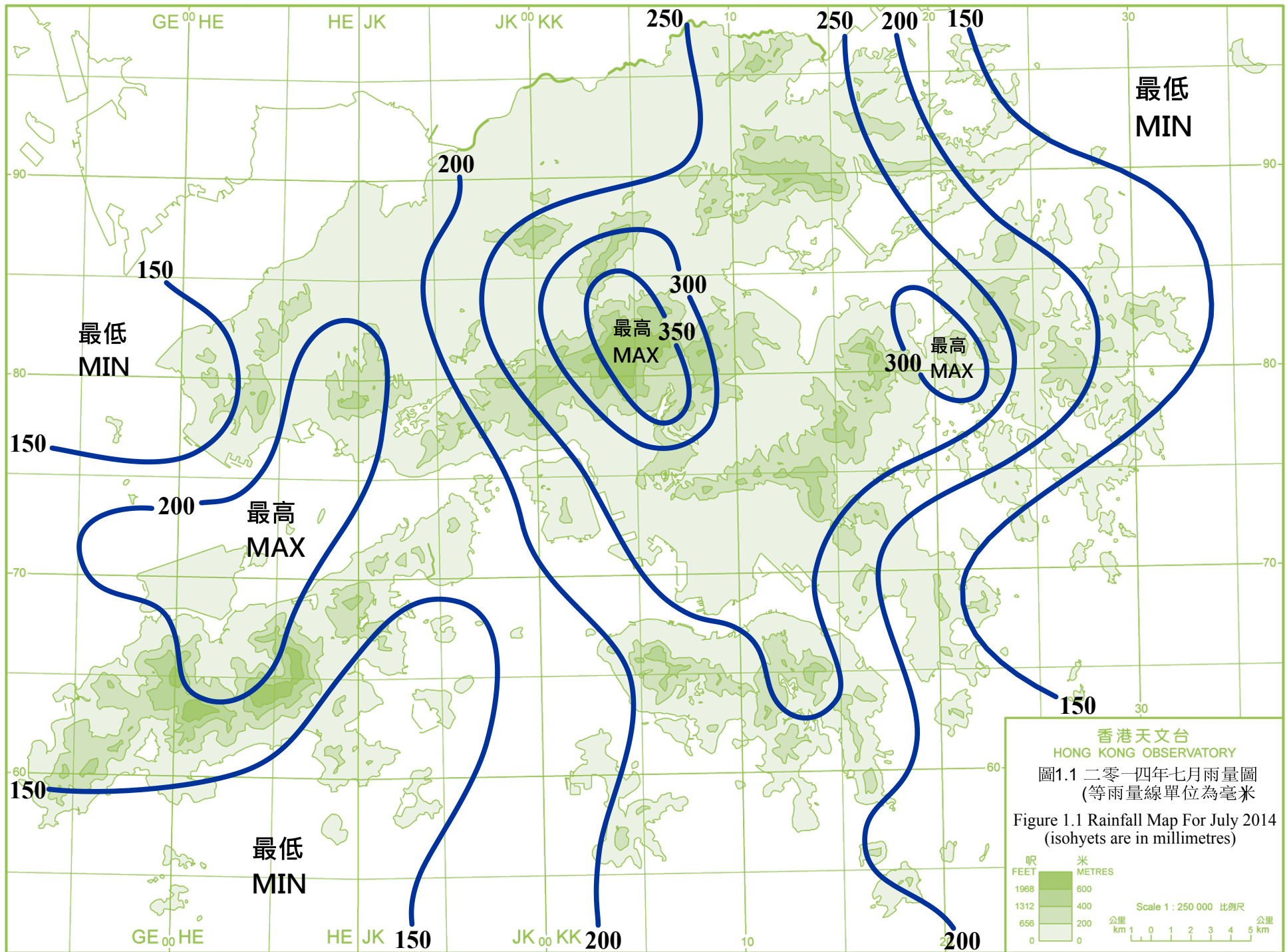




圖 1.2 2014年7月25日早上從機場氣象所觀測到的漏斗雲
Figure 1.2 The funnel cloud observed from the Airport Meteorological Office on the morning of 25 July 2014

2.1 二零一四年七月熱帶氣旋概述

二零一四年七月在北太平洋西部及南海區域出現了五個熱帶氣旋，其中只有威馬遜引致天文台需要發出熱帶氣旋警告信號。有關威馬遜的詳細描述記載於第2.2節。

熱帶低氣壓浣熊於七月三日在關島以南約470公里的北太平洋西部形成，並大致向西北方向移動。浣熊在隨後數天繼續發展，並於七月七日在沖繩島之東南偏南處增強為超強颱風及達到其最高強度，中心附近最高持續風速估計為每小時195公里。它於七月八日開始轉向偏北方向移動，橫過琉球群島並減弱為強颱風。浣熊翌日再度轉向，朝東北偏東方向移動，七月十日上午在鹿兒島縣沿岸登陸，並進一步減弱為熱帶風暴，掠過九州和本州南部海岸，翌日上午於本州以東海域演變為一股溫帶氣旋。

根據報章報導，浣熊橫掃日本期間，導致至少七人死亡，超過50人受傷，逾50萬人要撤離家園。沖繩縣至少有八萬六千戶停電，超過190班航班取消。

熱帶低氣壓威馬遜於七月十一日早上在關島之東南偏東約410公里的北太平洋西部形成，隨後數天穩定地向偏西方向移動，並逐漸增強，發展為強颱風後於七月十五和十六日期間轉向西北偏西方向移動，橫過菲律賓中部後進入南海。受到陸地影響威馬遜曾一度減弱，在南海重新組織，並於七月十八日增強為超強颱風，達到其最高強度，中心附近最高持續風速估計為每小時210公里。威馬遜採取一個西北路徑，當天稍後於海南島北部文昌市附近登陸，翌日早上橫過廣西海岸，在內陸減弱，七月二十日在雲南減弱為一個低壓區。

根據報章報導，威馬遜吹襲菲律賓期間造成最少98人死亡，五人失蹤，另外630人受傷。威馬遜在海南島、廣東西部及廣西等地亦造成嚴重破壞，最少有18人死亡，三萬七千間房屋倒塌，740萬人受災。

熱帶低氣壓麥德姆於七月十七日早上在雅蒲島之西北偏西約280公里的北太平洋西部形成，初時緩慢向西移動，七月十九日轉向西北方向移動，當天晚上增強為颱風。麥德姆隨後繼續增強，於七月二十二日早上達到其最高強度，中心附近最高持續風力估計為每小時140公里。麥德姆於七月二十三日早上橫過台灣，日間減弱為強烈熱帶風暴，傍晚在福建福清市附近登陸，翌日早上進一步減弱為熱帶風暴。麥德姆向北橫過華東，七月二十五日掠過山東半島南岸，晚間在黃海北部演變為一股溫帶氣旋。

根據報章報導，麥德姆吹襲台灣期間，海陸空交通癱瘓，超過30萬戶停水停電。一架民航機在麥德姆引發的惡劣天氣下於澎湖群島失事墜毀，48人死亡，另外有十人受傷。麥德姆亦為福建、山東及華東地區帶來暴雨，最少有30萬人受災。

熱帶低氣壓夏浪於七月二十九日早上在關島之東南偏東約440公里的北太平洋西部形成，向西北偏西方向移動，翌日上午增強為強烈熱帶風暴，月底前仍大致趨向菲律賓以東的海域。

熱帶低氣壓娜基莉於七月二十九日下午在馬尼拉之東北偏東約930公里的北太平洋西部形成，大致以偏北途徑移動，翌日上午增強為熱帶風暴，於七月三十一日橫過琉球群島，向東海進發。



2.1 Overview of Tropical Cyclones in July 2014

Five tropical cyclones occurred over the western North Pacific and the South China Sea in July 2014. Rammasun was the only one necessitating the issuance of the tropical cyclone warning signals by the Observatory and a detailed report is presented in Section 2.2.

Neoguri formed as a tropical depression over the western North Pacific about 470 km south of Guam on 3 July and generally moved northwestwards. It continued to develop in the next few days and intensified into a super typhoon on 7 July to the south-southeast of Okinawa, reaching its peak intensity with estimated sustained winds of 195 km/h near its centre. It turned northwards on 8 July, crossing the Ryukyu Islands and weakening into a severe typhoon. Following another turn to the east-northeast the next day, Neoguri finally made landfall over the coast of Kagoshima Prefecture on the morning of 10 July. Weakening further into a tropical storm, it skirted past the south coast of Kyushu and Honshu before becoming an extratropical cyclone over the seas east of Honshu the next morning.

According to press reports, at least seven people were killed, more than 50 injured and over 500 000 people evacuated in Japan during the passage of Neoguri. There were also interruptions of electricity supply to at least 86 000 households in Okinawa Prefecture. More than 190 flights were cancelled.

Rammasun formed as a tropical depression over the western North Pacific about 410 km east-southeast of Guam on the morning of 11 July. It intensified gradually and moved westwards steadily in the following few days. Rammasun developed into a severe typhoon and turned west-northwestwards on 15 and 16 July, moving across the central part of the Philippines and entering the South China Sea. After weakening over terrain, Rammasun

re-organized over the South China Sea and intensified into a super typhoon on 18 July, reaching its peak intensity with an estimated sustained wind of 210 km/h near its centre. Tracking northwestwards, it made landfall near Wenchang over the northern part of Hainan Island later that day and crossed the coast of Guangxi the next morning. Rammasun weakened over land and became an area of low pressure over Yunnan on 20 July.

According to press reports, at least 98 people were killed, five were missing and 630 others were injured in the Philippines during the passage of Rammasun. Rammasun also wreaked havoc in Hainan Island, western Guangdong and Guangxi. At least 18 people were killed, 37 000 houses collapsed, with 7.4 million people affected.

Matmo formed as a tropical depression over the western North Pacific about 280 km west-northwest of Yap on the morning of 17 July. Moving slowly westwards initially, it turned northwestwards on 19 July and intensified into a typhoon that night. It continued to intensify and reached its peak intensity with estimated sustained winds of 140 km/h near its centre on the morning of 22 July. Matmo moved across Taiwan on the morning of 23 July and weakened into a severe tropical storm during the day. It made landfall near Fuqing of Fujian that evening and weakened further into a tropical storm the next morning. Tracking northwards across eastern China, Matmo skirted the south coast of Shandong Peninsula on 25 July and became an extratropical cyclone over the northern part of the Yellow Sea during the night.

According to press reports, all transportation services were suspended and there were interruptions of water and electricity supply to over 300 000 households in Taiwan during the passage of Matmo. A civilian aircraft crashed at the Penghu islands under severe weather triggered by Matmo, killing 48 people and injuring ten others. Matmo also brought rainstorms to Fujian, Shandong and eastern China, affecting at least 300 000 people.

Halong formed as a tropical depression over the western North Pacific about 440 km east-southeast of Guam on the morning of 29 July and moved west-northwestwards. It intensified into a severe tropical storm the next morning and continued to move generally in the direction of the sea areas east of the Philippines towards the end of the month.

Nakri formed as a tropical depression over the western North Pacific about 930 km east-northeast of Manila on the afternoon of 29 July and moved generally northwards. It intensified into a tropical storm the next morning and swept past the Ryukyu Islands towards the East China Sea on 31 July.

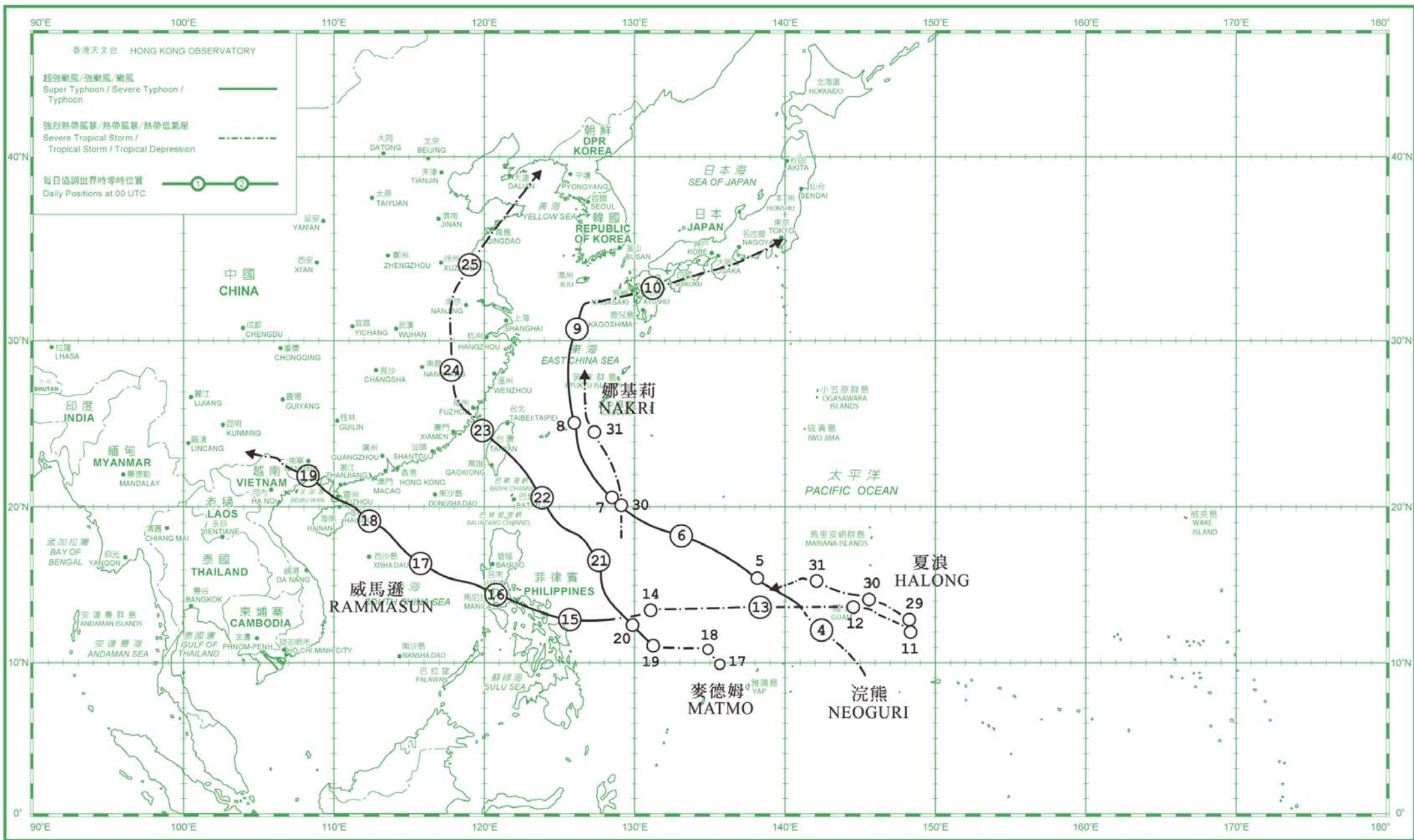


圖 2.1.1 二零一四年七月的熱帶氣旋路徑圖
Figure 2.1.1 Track of tropical cyclones in July 2014

2.2 超強颱風威馬遜 (1409)

二零一四年七月十一日至二十日

威馬遜是香港天文台在二零一四年第二個需要發出熱帶氣旋警告信號的熱帶氣旋，也是今年首個需要發出三號強風信號的熱帶氣旋。

熱帶低氣壓威馬遜於七月十一日早上在關島之東南偏東約410公里的北太平洋西部形成，隨後數天穩定地向偏西方向移動，並逐漸增強，發展為強颱風後於七月十五和十六日期間轉向西北偏西方向移動，橫過菲律賓中部後進入南海。受到陸地影響威馬遜曾一度減弱，在南海重新組織，並於七月十八日增強為超強颱風，達到其最高強度，中心附近最高持續風速估計為每小時210公里。威馬遜採取一個西北路徑，當天稍後於海南島北部文昌市附近登陸，翌日早上橫過廣西海岸，在內陸減弱，七月二十日在雲南減弱為一個低壓區。

根據報章報導，威馬遜吹襲菲律賓期間造成最少98人死亡，五人失蹤，另外630人受傷，多處地區停電，直接經濟損失超過108億披索(約19億港元)。威馬遜在海南島、廣東西部及廣西等地亦造成嚴重破壞，最少有18人死亡，三萬七千間房屋倒塌，740萬人受災，逾468 500公頃農田受影響，海陸空交通癱瘓，局部地區通信中斷，直接經濟損失超過265 億元人民幣。威馬遜為雲南帶來暴雨及泥石流，造成最少14人死亡。

香港天文台於七月十六日下午11時40分發出一號戒備信號，當時威馬遜位於香港之東南偏南約790公里。隨着威馬遜逐漸移近華南沿岸，本港在七月十七日東風逐漸增強，天文台在下午4時15分發出三號強風信號，當時威馬遜位於香港以南約590公里。晚上本港風勢進一步增強，普遍吹達強風程度的東至東南風，離岸及高地間中吹烈風。香港天文台總部於七月十八日上午4時01分錄得最低瞬時海平面氣壓1001.6百帕斯卡，當時威馬遜位於香港之西南偏南約420公里。威馬遜於當日正午時分最接近香港，在本港西南約390公里附近掠過。隨著威馬遜移離，本港風勢逐漸減弱，天文台在晚上7時40分改發一號戒備信號，取代三號強風信號。威馬遜在晚間橫過北部灣並進一步遠離本港，天文台於七月十九日上午3時40分取消所有熱帶氣旋警告信號。

威馬遜影響香港期間，尖鼻咀錄得最高潮位(海圖基準面以上)為2.52米，而大埔滘則錄得最大風暴潮0.59米。

七月十七日本港初時大致天晴。受威馬遜的外圍雨帶影響，日間漸轉多雲，有狂風驟雨及雷暴，多處地區錄得超過20毫米雨量。威馬遜於七月十八日繼續為香港帶來狂風大驟雨及雷暴，普遍地區錄得20毫米雨量，西貢及新界北部更錄得超過50毫米。

威馬遜吹襲香港期間，本港最少有51宗塌樹報告及多宗高空墜物意外。荃灣路行車

天橋的一支燈柱於七月十七日在強風吹襲下折斷，壓毀兩部私家車。香港國際機場有57班航班取消和413班航班延誤，另外有6班航班需要轉飛其它地方。



2.2 Super Typhoon Rammasun (1409) 11 to 20 July 2014

Rammasun was the second tropical cyclone that necessitated the issuance of tropical cyclone warning signal by the Hong Kong Observatory in 2014. It was also the first tropical cyclone necessitating the issuance of Strong Wind Signal No. 3 in the year.

Rammasun formed as a tropical depression over the western North Pacific about 410 km east-southeast of Guam on the morning of 11 July. It intensified gradually and moved westwards steadily in the following few days. Rammasun developed into a severe typhoon and turned west-northwestwards on 15 and 16 July, moving across the central part of the Philippines and entering the South China Sea. After weakening over terrain, Rammasun re-organized over the South China Sea and intensified into a super typhoon on 18 July, reaching its peak intensity with an estimated sustained wind of 210 km/h near its centre. Tracking northwestwards, it made landfall near Wenchang over the northern part of Hainan Island later that day and crossed the coast of Guangxi the next morning. Rammasun weakened over land and became an area of low pressure over Yunnan on 20 July.

According to press reports, at least 98 people were killed, five were missing and 630 others were injured in the Philippines during the passage of Rammasun. There were also power blackouts over many places and the direct economic loss exceeded 10.8 billion PHP (around 1.9 billion HKD). Rammasun also wreaked havoc in Hainan Island, western Guangdong and Guangxi. At least 18 people were killed, 37 000 houses collapsed, with 7.4 million people and more than 468 500 hectares of farmland affected. Transportation services were suspended and communication in some areas was disrupted. The direct economic loss exceeded 26.5 billion RMB. Rammasun also brought rainstorms and mudslides to Yunnan where at least 14 people were killed.

In Hong Kong, the Standby Signal No. 1 was issued at 11:40 p.m. on 16 July when Rammasun was about 790 km south-southeast of the territory. With Rammasun edging closer to the south China coast, local winds strengthened gradually from the east on 17 July and the Strong Wind Signal No. 3 was issued at 4:15 p.m. when Rammasun was about

590 km south of Hong Kong. Winds in Hong Kong picked up further that night, becoming generally strong east to southeasterlies with occasionally gale force over offshore and on high grounds. At the Hong Kong Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1001.6 hPa was recorded at 4:01 a.m. on 18 July when Rammasun was at about 420 km to the south-southwest. Rammasun came closest to the territory around noon that day, skirting at around 390 km to the southwest of Hong Kong. Local winds subsided gradually as Rammasun moved away from Hong Kong. The Strong Wind Signal No. 3 was replaced by the Standby Signal No. 1 at 7:40 p.m. on 18 July. As Rammasun crossing Beibu Wan and moved further away from Hong Kong overnight, all tropical cyclone warning signals were cancelled at 3:40 a.m. on 19 July.

Under the influence of Rammasun, a maximum sea level (above chart datum) of 2.52 m was recorded at Tsim Bei Tsui, while a maximum storm surge of 0.59 m was recorded at Tai Po Kau.

Local weather was mainly fine at first on 17 July. Under the influence of the outer rainbands of Rammasun, the weather became cloudy with squally showers and thunderstorms. More than 20 millimetres of rainfall were recorded over many places in Hong Kong. Rammasun continued to bring heavy squally showers and thunderstorms to the territory on 18 July. 20 millimetres of rainfall were recorded generally over the territory, and rainfall even exceeded 50 millimetres over Sai Kung and northern part of the New Territories.

In Hong Kong, at least 51 trees were blown down and many incidents of fallen objects were reported. A lamp post in Tsuen Wan flyover fell down under strong winds on 17 July, damaging two private cars. At the Hong Kong International Airport, 57 flights were cancelled, 413 delayed and 6 aircraft were diverted.

表 2.2.1 在威馬遜影響下，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 Rammasun were in force

站 Station (http://www.weather.gov.hk/informtc/station2014_uc.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 Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Direction		風速 Speed (km/h)	日期/月份 Date/Month	時間 Time
黃麻角 (赤柱)	Bluff Head (Stanley)	東	E	77	17/7	19:25	東南偏東	ESE	45	18/7	06:00
中環碼頭	Central Pier	東北偏東	ENE	81	17/7	17:21	東	E	40	18/7	09:00
長洲	Cheung Chau	東南	SE	103	18/7	09:42	東南	SE	63	18/7	12:00
長洲泳灘	Cheung Chau Beach	東北偏東	ENE	96	17/7	17:33	東	E	65	18/7	06:00
青洲	Green Island	東北	NE	101	17/7	17:24	東北	NE	58	17/7	17:00
香港國際 機場	Hong Kong International Airport	東南偏東	ESE	77	18/7	00:05	東南	SE	45	18/7	14:00
啟德	Kai Tak	東	E	77	17/7	17:16	東南偏東	ESE	36	19/7	00:00
京士柏	King's Park	東南	SE	67	18/7	05:38	東南	SE	34	18/7	09:00
流浮山	Lau Fau Shan	東南	SE	67	18/7	10:29	東	E	31	17/7	16:00
北角	North Point	東	E	77	17/7	17:22	東	E	36	18/7	06:00
坪洲	Peng Chau	東	E	76	17/7	19:42	東	E	45	18/7	06:00
平洲	Ping Chau	東	E	34	17/7	18:29	東	E	12	17/7	16:00
西貢	Sai Kung	東北偏東	ENE	70	17/7	21:34	東北偏東	ENE	41	17/7	16:00
沙洲	Sha Chau	東南偏南	SSE	90	18/7	10:05	東南	SE	49	18/7	14:00
沙螺灣	Sha Lo Wan	東南	SE	92	18/7	10:08	東	E	36	17/7	18:00
沙田	Sha Tin	東	E	59	17/7	17:21	東	E	20	17/7	13:00
石崗	Shek Kong	東南偏東	ESE	70	17/7	20:14	東	E	25	18/7	06:00
							東	E	25	18/7	08:00
九龍天星 碼頭	Star Ferry (Kowloon)	東	E	75	18/7	04:43	東	E	45	18/7	06:00
打鼓嶺	Ta Kwu Ling	東	E	58	18/7	06:54	東	E	25	18/7	08:00
大美督	Tai Mei Tuk	東	E	79	18/7	05:33	東	E	54	18/7	09:00
大帽山	Tai Mo Shan	東	E	118	18/7	06:27	東	E	79	18/7	07:00
塔門	Tap Mun	東	E	65	17/7	21:25	東南	SE	31	18/7	13:00
大老山	Tate's Cairn	東	E	113	17/7	17:19	東	E	67	18/7	06:00
將軍澳	Tseung Kwan O	東南偏東	ESE	59	18/7	11:04	東南偏東	ESE	16	18/7	14:00
		東南偏東	ESE	59	18/7	13:13					
青衣島蜆 殼油庫	Tsing Yi Shell Oil Depot	-	-	63	18/7	10:10	-	-	25	18/7	09:00
屯門政府 合署	Tuen Mun Government Offices	東南	SE	63	18/7	10:18	東南	SE	22	18/7	15:00
橫瀾島	Waglan Island	東	E	96	17/7	19:19	東南偏東	ESE	62	18/7	05:00
濕地公園	Wetland Park	東	E	52	17/7	16:52	東	E	22	18/7	06:00
							東南偏東	ESE	22	18/7	08:00
黃竹坑	Wong Chuk Hang	東南	SE	77	18/7	09:54	東南偏東	ESE	30	18/7	06:00

- 沒有資料

- Data not available

昂坪、大埔滘- 沒有資料

Ngong Ping, Tai Po Kau - Data not available

表 2.2.2 在威馬遜影響下，熱帶氣旋警告信號系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風程度的時段

Table 2.2.2 Periods during which sustained strong winds were attained at the eight reference anemometers in the tropical cyclone warning system when the tropical cyclone warning signals for Rammasun were in force

站 Station (http://www.weather.gov.hk/informtc/station2014_uc.htm)		最初達到強風*時間		最後達到強風*時間	
		Start time when strong wind speed* was attained		End time when strong wind speed* was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	17/7	10:52	19/7	01:47
香港國際機場	Hong Kong International Airport	17/7	13:21	18/7	15:11
啟德	Kai Tak	17/7	19:37	18/7	13:02
西貢	Sai Kung	17/7	12:45	18/7	13:23

流浮山、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Lau Fau Shan, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

* 十分鐘平均風速達每小時 41 - 62 公里

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

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

Note: The table gives the start and end time when strong 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 威馬遜影響香港期間，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 Rammasun

站 (參閱圖 2.2.2) Station (See Fig. 2.2.2)		七月十七日 17 Jul	七月十八日 18 Jul	七月十九日 19 Jul	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory		34.5	19.5	6.5	60.5
香港國際機場 Hong Kong International Airport (HKA)		9.6	36.4	3.4	49.4
長洲 Cheung Chau (CCH)		20.0	17.5	1.0	38.5
H23	香港仔 Aberdeen	41.5	20.0	4.0	65.5
N05	粉嶺 Fanling	3.0	37.0	8.0	48.0
N13	糧船灣 High Island	24.5	27.0	7.5	59.0
K04	佐敦谷 Jordan Valley	27.5	28.0	13.5	69.0
N06	葵涌 Kwai Chung	22.5	28.0	10.0	60.5
H12	半山區 Mid Levels	32.0	23.0	6.5	61.5
N09	沙田 Sha Tin	17.0	47.0	10.0	74.0
H19	筲箕灣 Shau Kei Wan	39.0	16.0	5.5	60.5
SEK	石崗 Shek Kong	13.5	51.0	12.0	76.5
K06	蘇屋邨 So Uk Estate	0.5	24.5	7.0	32.0
R31	大美督 Tai Mei Tuk	8.0	59.0	8.0	75.0
R21	踏石角 Tap Shek Kok	3.5	19.5	1.5	24.5
N17	東涌 Tung Chung	14.5	31.0	7.0	52.5
R27	元朗 Yuen Long	8.5	27.5	2.5	38.5

表 2.2.4 威馬遜影響香港期間，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 Rammasun

站 Station (http://www.weather.gov.hk/informtc/station2014_uc.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
鯽魚涌	Quarry Bay	2.29	17/7	12:51	0.48	18/7	05:50
石壁	Shek Pik	2.37	18/7	13:07	0.52	18/7	13:07
大廟灣	Tai Miu Wan	2.28	17/7	12:43	0.53	18/7	12:21
大埔滘	Tai Po Kau	2.25	17/7	13:50	0.59	18/7	06:46
尖鼻咀	Tsim Bei Tsui	2.52	17/7	13:29	0.37	18/7	14:02
橫瀾島	Waglan Island	2.43	17/7	12:53	0.47	18/7	12:28

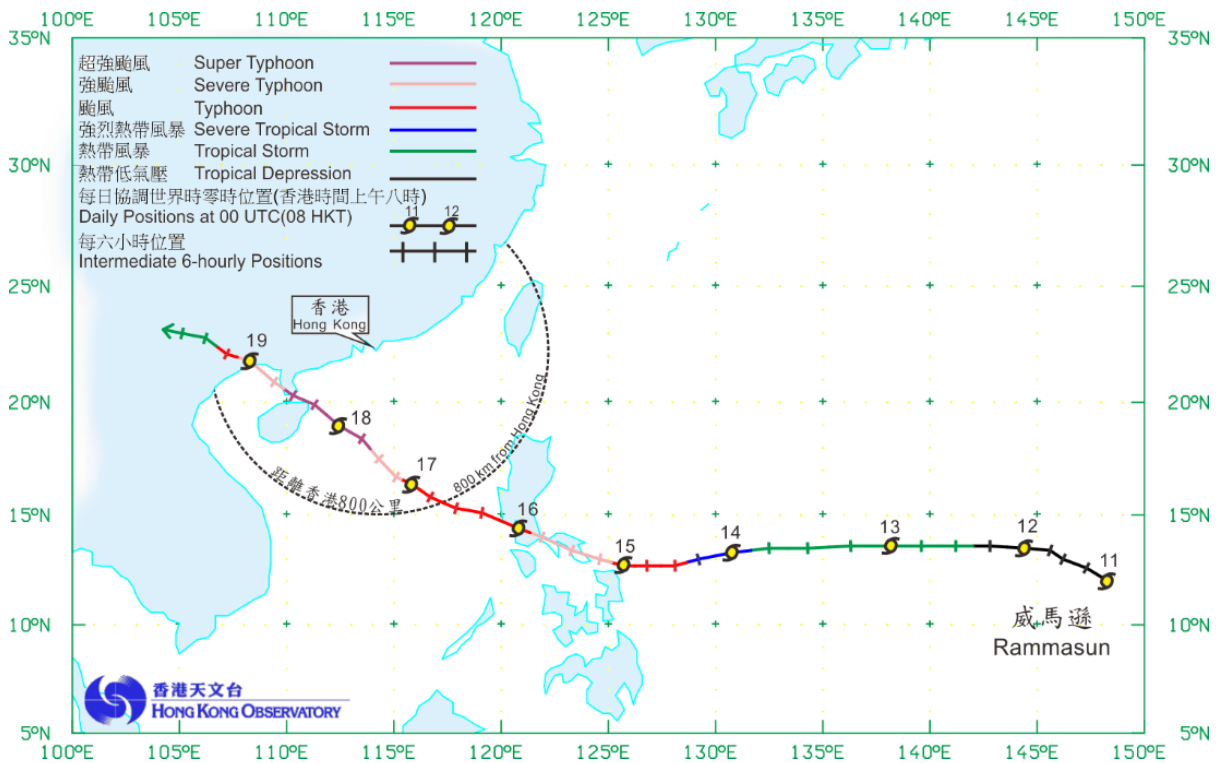


圖 2.2.1 威馬遜(1409) 在二零一四年七月十一日至二十日的路徑圖。

Figure 2.2.1 Track of Rammasun (1409) for 11 – 20 July 2014

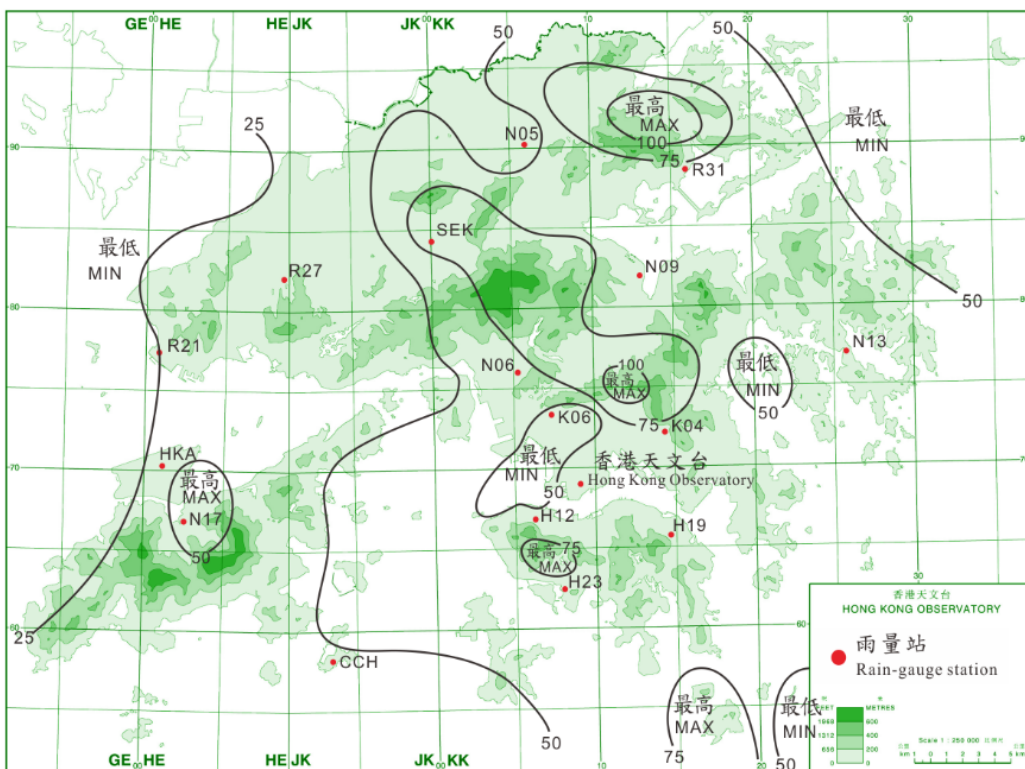


圖 2.2.2 二零一四年七月十七日至十九日的雨量分佈(等雨量線單位為毫米)。

Figure 2.2.2 Rainfall distribution on 17 – 19 July 2014 (isohyets are in millimetres)..

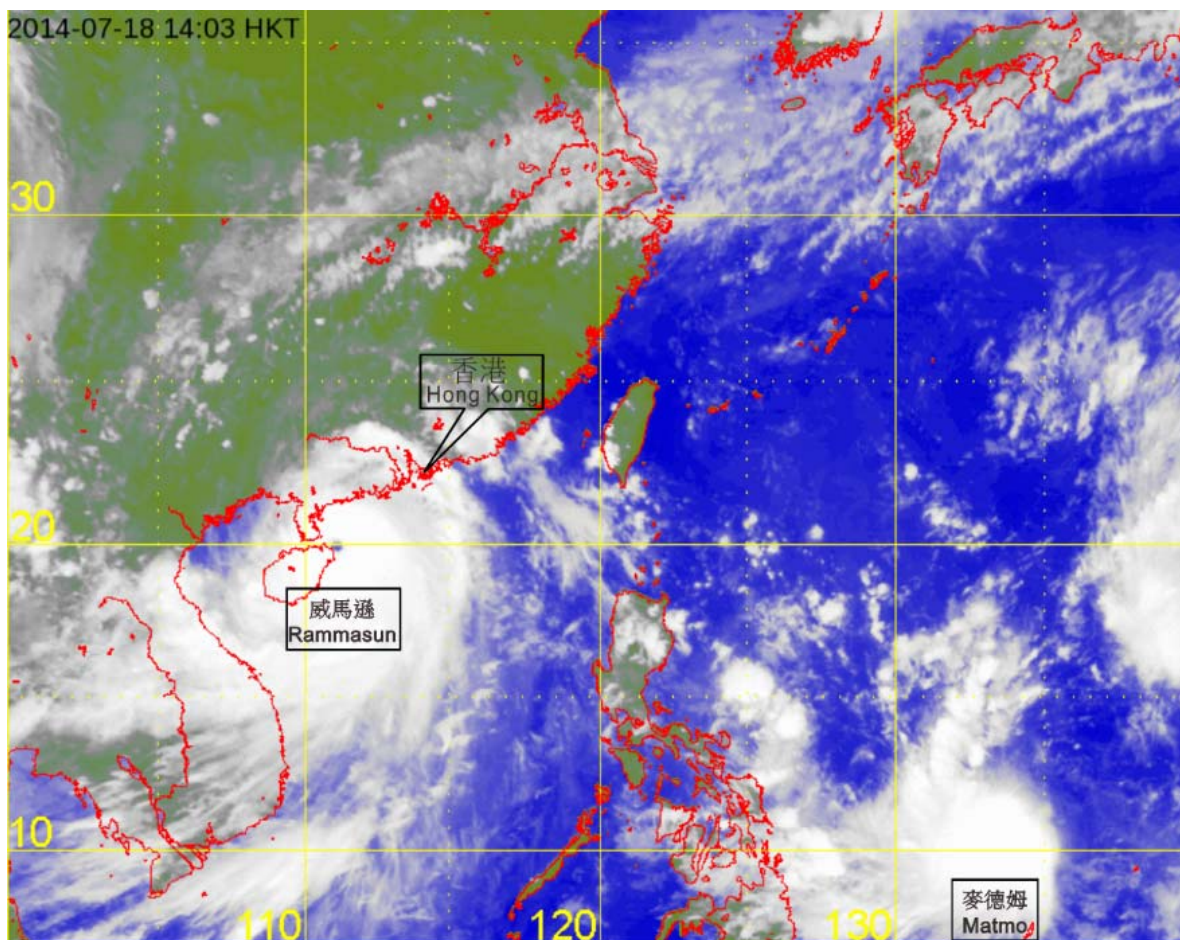


圖 2.2.3 超強颱風威馬遜在二零一四年七月十八日下午 2 時的紅外線衛星圖片，當時威馬遜達到其最高強度，中心附近最高持續風速估計為每小時 210 公里，其風眼正移近海南島文昌市沿岸。

Figure 2.2.3 Infra-red satellite imagery of Super Typhoon Rammasun at 2 p.m. on 18 July 2014 at its peak intensity with estimated maximum sustained winds of 210 km/h near its centre. The eye of Rammasun was edging close to the coast of Wenchang of Hainan Island.

〔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).]

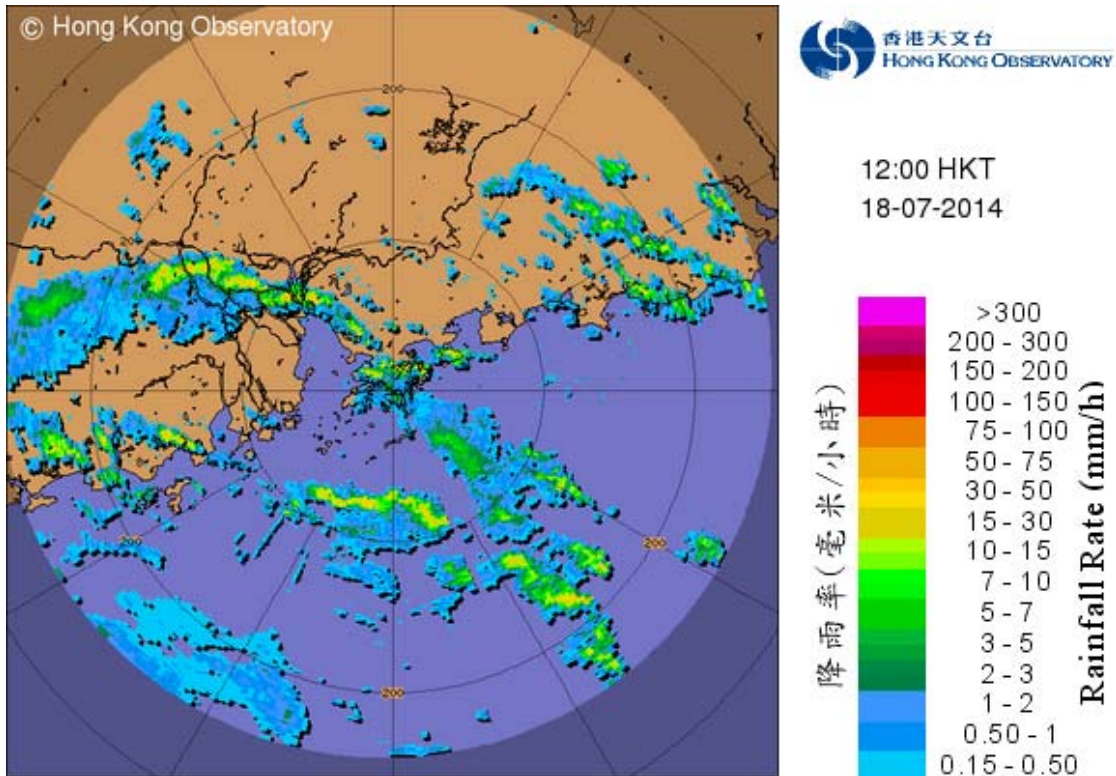
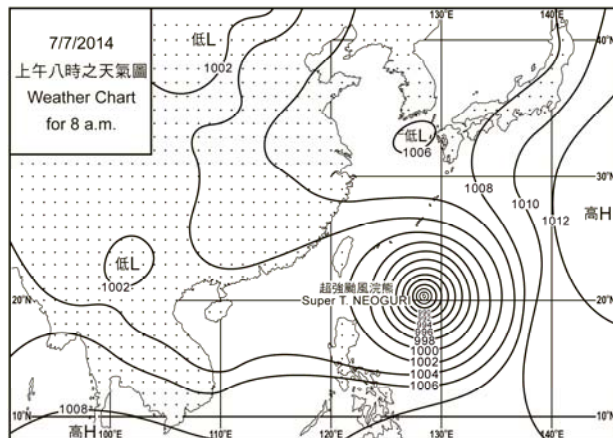
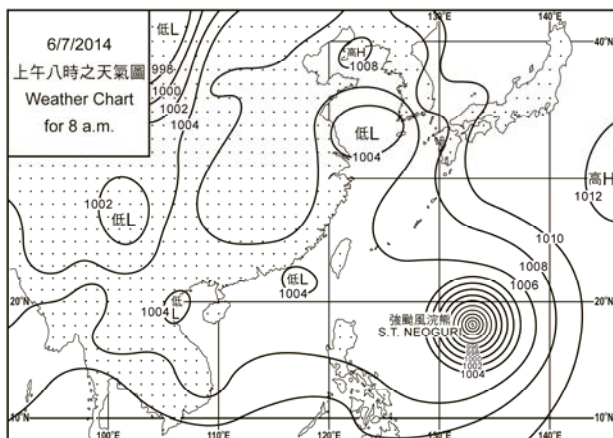
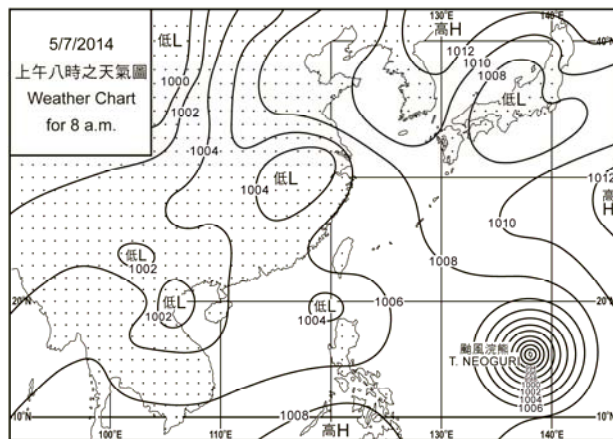
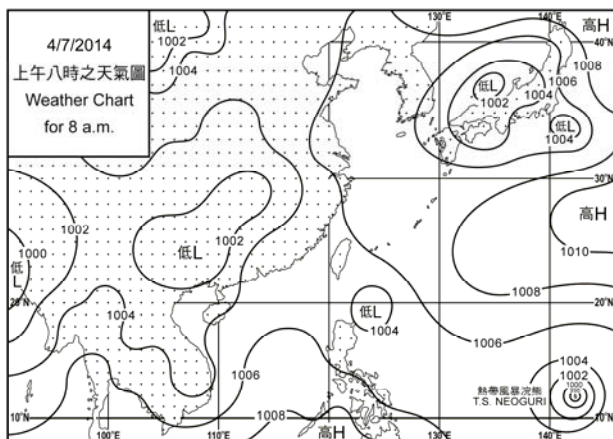
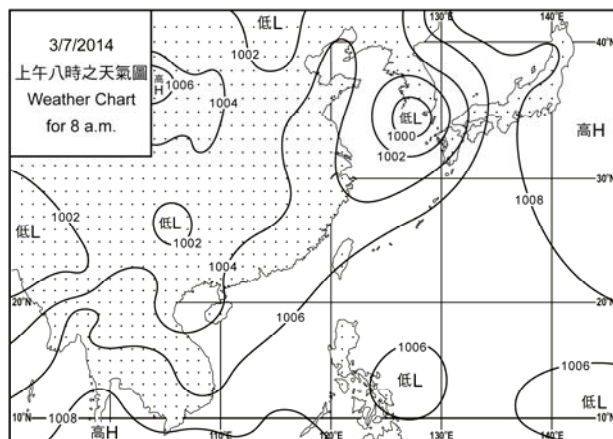
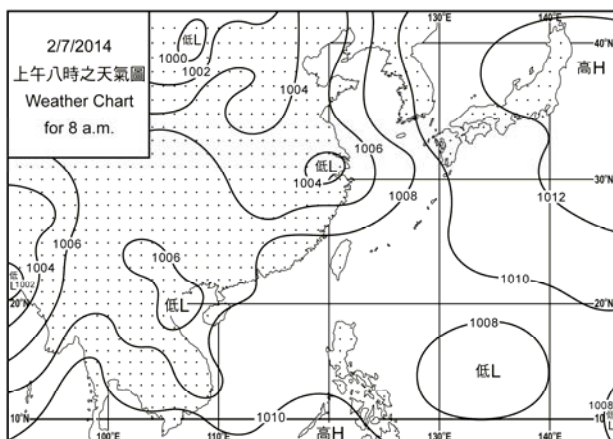
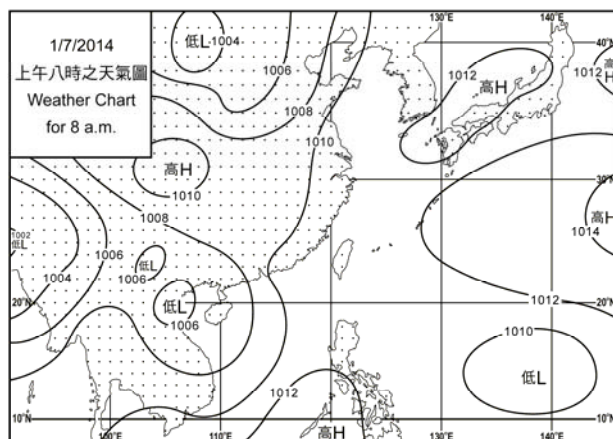
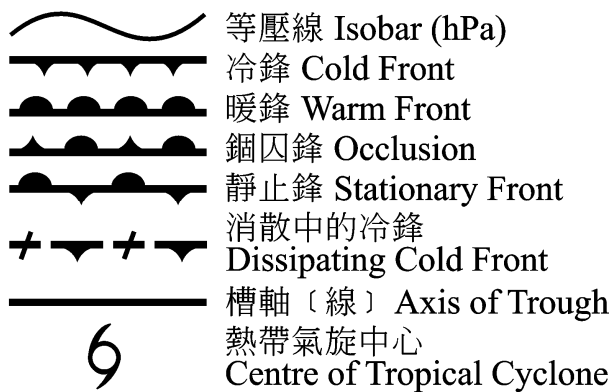
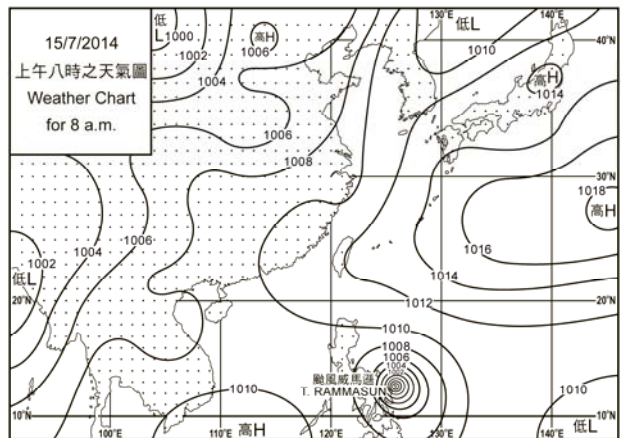
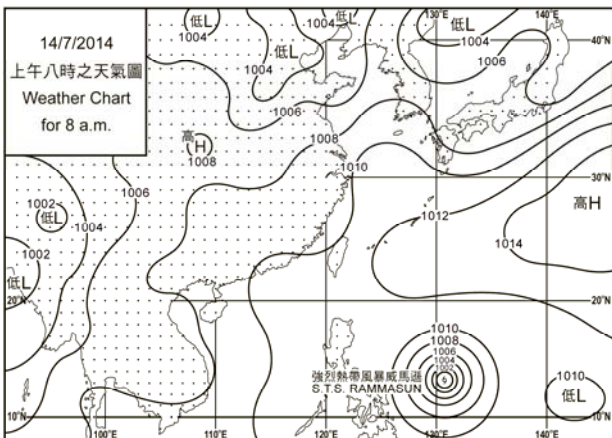
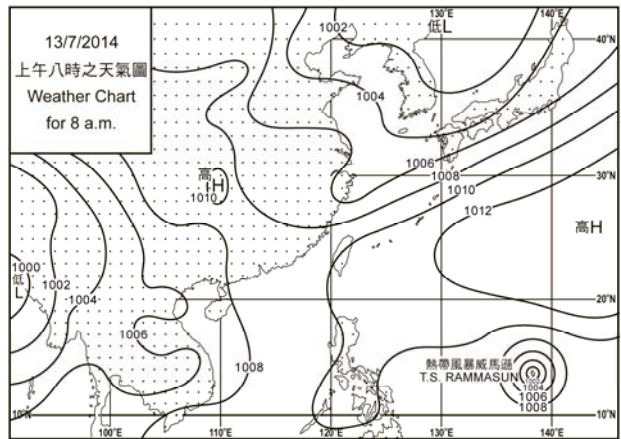
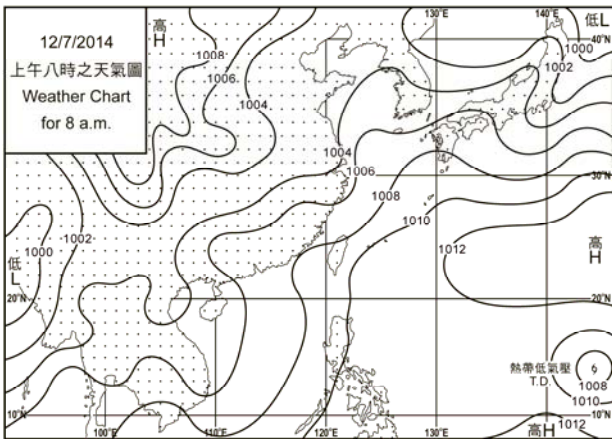
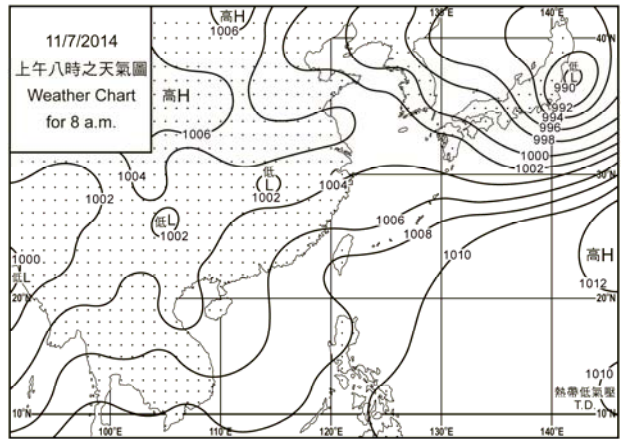
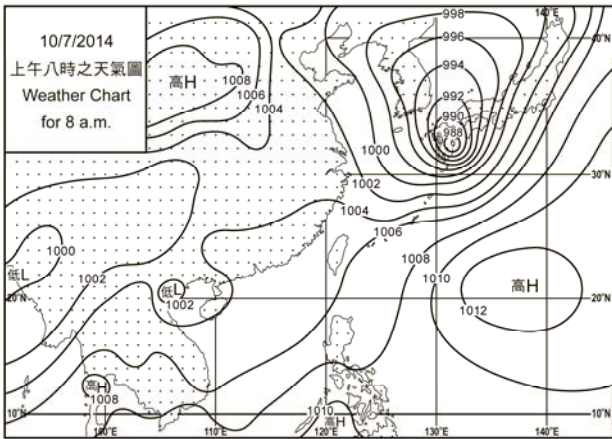
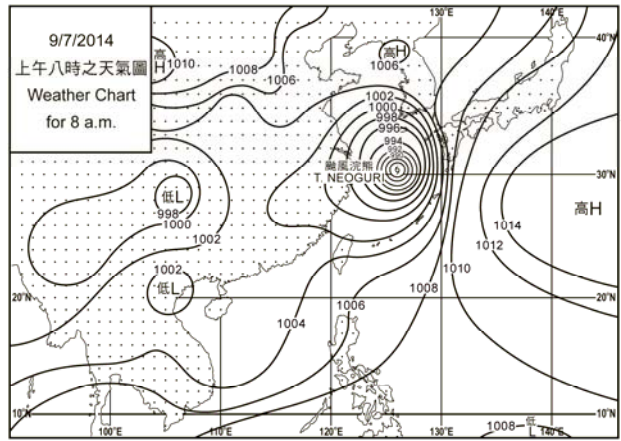
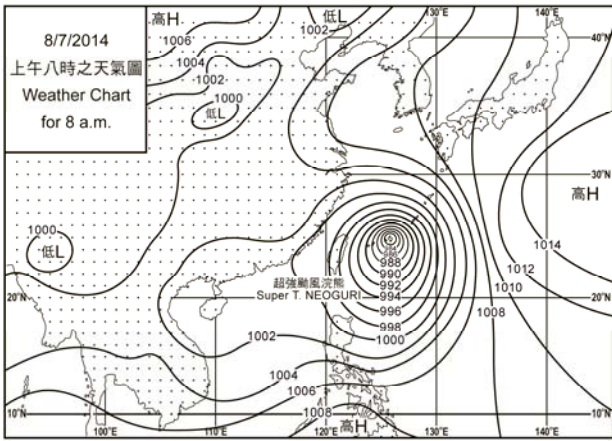


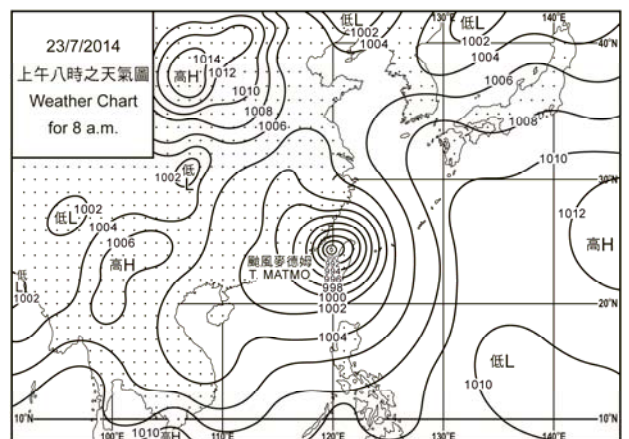
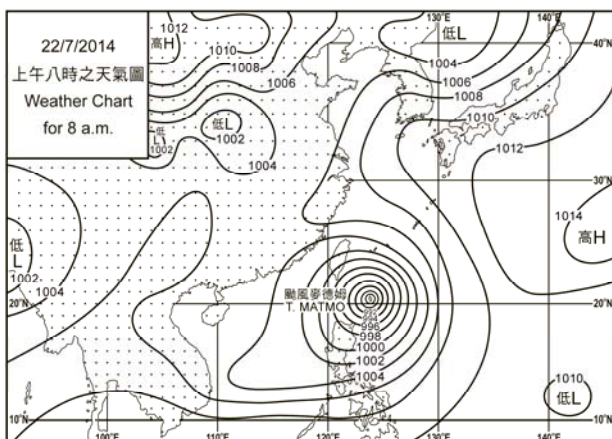
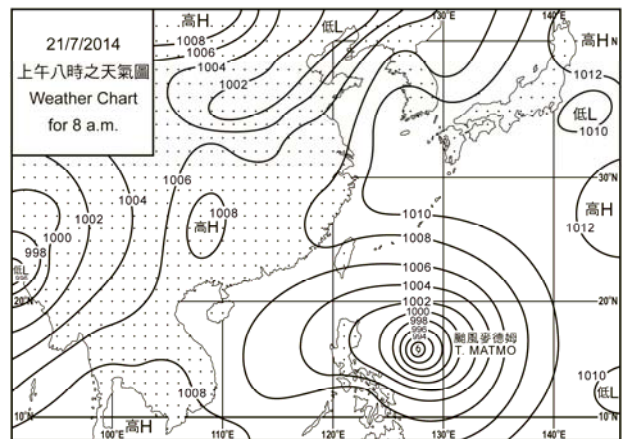
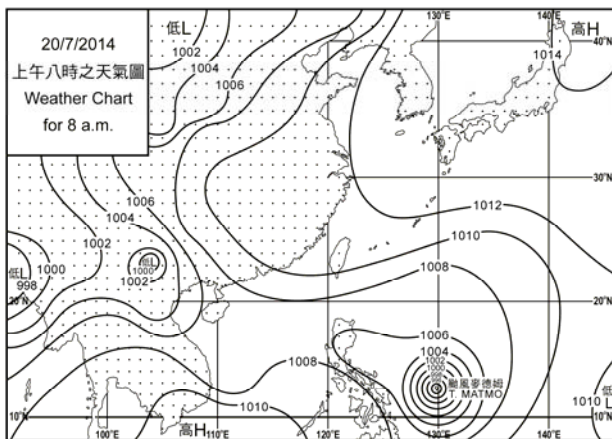
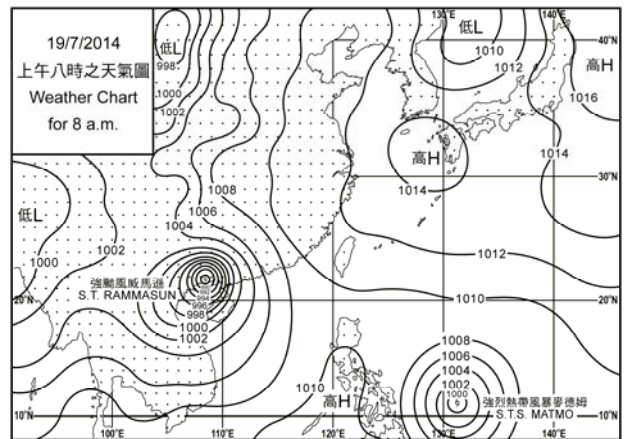
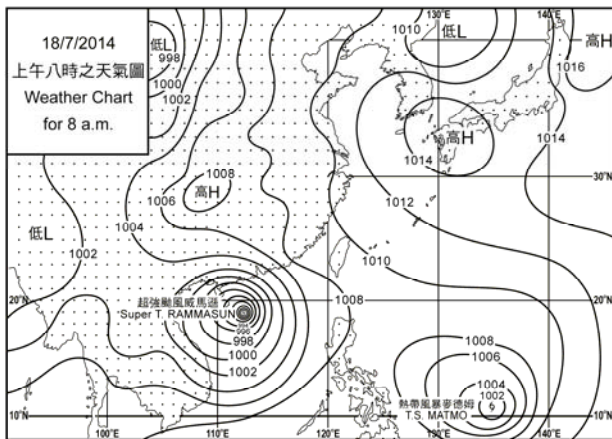
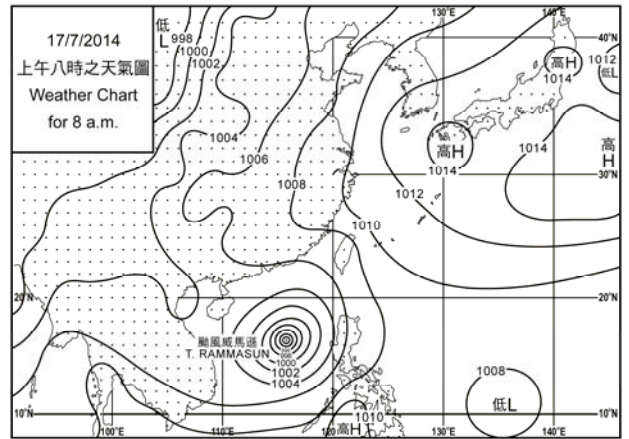
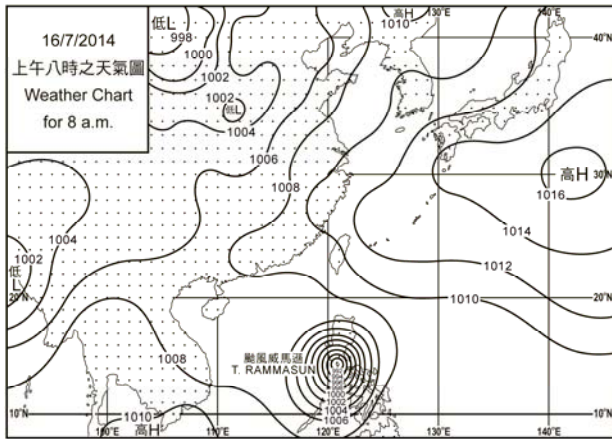
圖 2.2.4 二零一四年七月十八日中午 12 時的雷達回波圖像，超強颱風威馬遜最接近本港的一刻，其中心集結在香港之西南約 390 公里。當時威馬遜的外圍雨帶正影響本港。

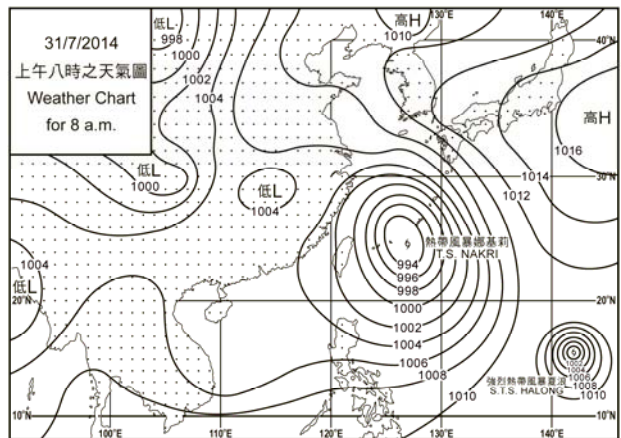
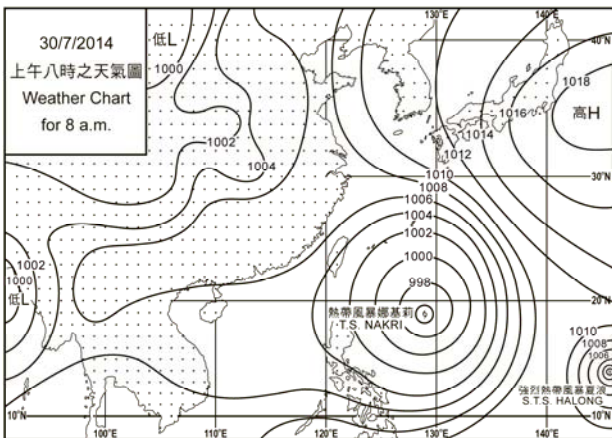
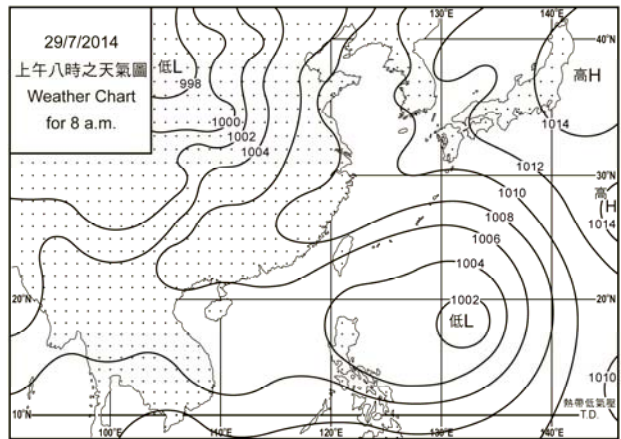
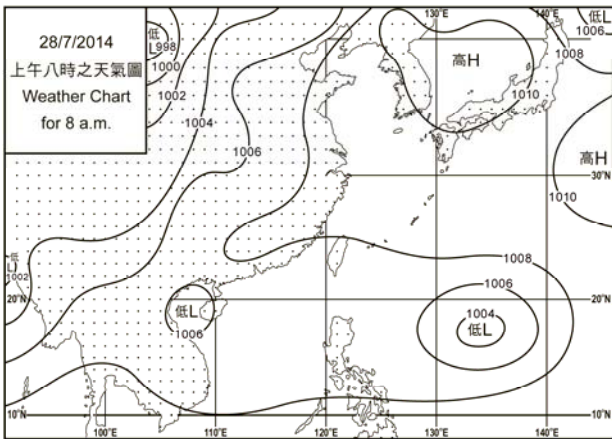
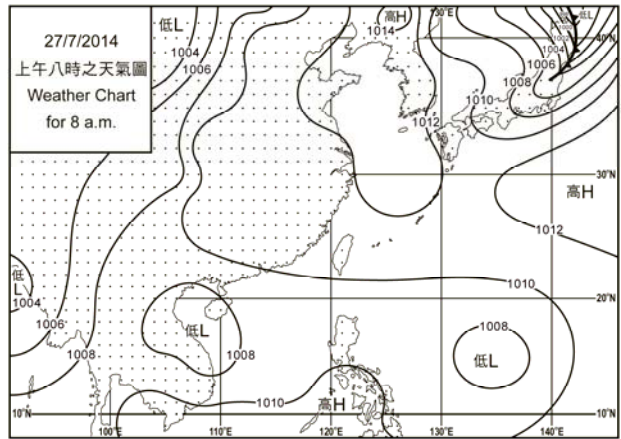
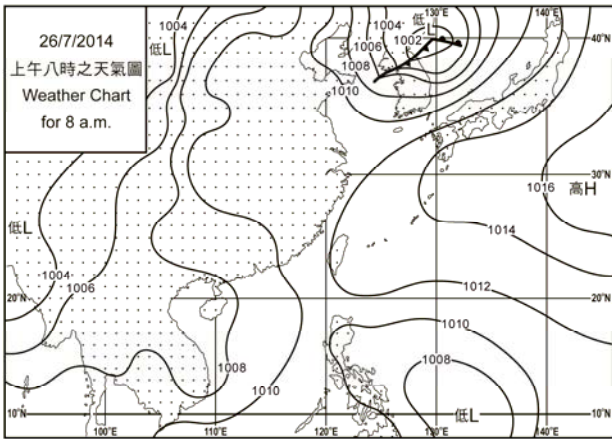
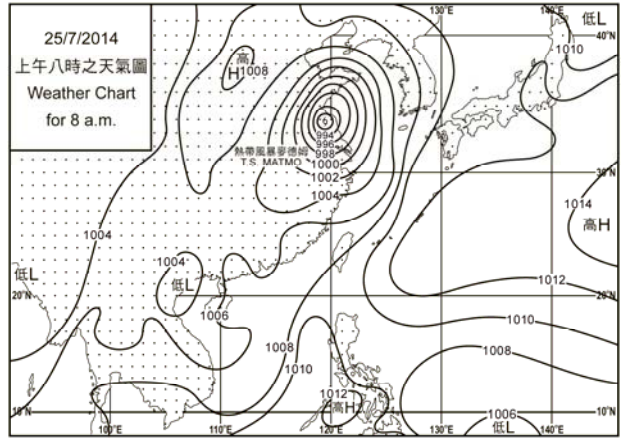
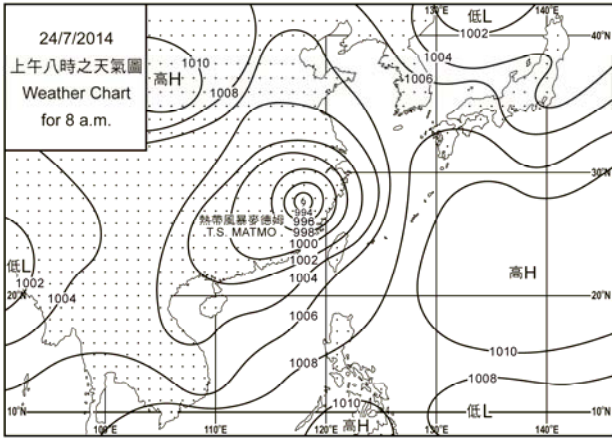
Figure 2.2.4 Radar echoes captured at noon on 18 July 2014 when Super Typhoon Rammasun was closest to Hong Kong with its centre about 390 km to the southwest. The outer rainbands of Rammasun were affecting the territory.

3. 二零一四年七月每日天氣圖 3. Daily Weather Maps for July 2014









4.1.1 二零一四年七月香港氣象觀測摘錄(一)

4.1.1 Extract of Meteorological Observations in Hong Kong (Part 1), July 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				
七月 July	百帕斯卡 hPa	°C	°C	°C	°C	%	%	毫米 mm
1	1008.8	31.6	28.7	26.3	26.5	88	82	13.9
2	1007.0	32.9	30.1	28.0	26.4	81	73	Tr
3	1004.4	33.1	30.5	29.1	26.1	77	72	0.1
4	1004.0	33.8	30.9	29.3	26.0	76	57	-
5	1004.5	33.8	30.9	28.9	26.2	76	68	1.5
6	1004.1	32.9	30.4	27.9	26.2	79	82	14.8
7	1001.9	30.3	29.0	26.9	25.9	84	88	5.5
8	1000.3	33.5	30.5	28.4	26.0	78	85	-
9	1002.3	33.4	30.8	28.4	25.9	76	63	Tr
10	1003.9	32.7	30.1	27.4	26.2	80	77	16.9
11	1005.2	32.2	29.4	26.8	26.0	82	76	23.3
12	1006.7	33.6	30.3	28.3	26.5	81	65	5.8
13	1008.5	33.1	30.0	28.5	26.1	80	70	2.9
14	1009.6	32.3	29.9	27.0	26.1	80	74	22.6
15	1009.8	33.8	30.6	28.8	25.5	75	77	0.2
16	1007.9	33.5	30.2	28.1	25.4	76	78	Tr
17	1004.7	32.1	29.2	26.7	25.5	81	79	34.5
18	1003.9	29.0	27.6	26.3	25.5	88	88	19.5
19	1007.3	31.7	28.7	26.9	26.1	86	85	6.5
20	1008.1	32.2	28.9	26.4	26.0	85	81	11.1
21	1005.5	32.7	29.7	27.8	24.7	75	73	-
22	1002.6	33.2	29.4	26.2	25.2	79	53	35.7
23	999.7	32.9	30.6	29.2	26.6	79	60	-
24	1001.4	31.0	29.8	27.9	26.5	83	88	7.3
25	1005.7	33.5	29.9	27.3	25.4	77	82	6.2
26	1008.8	30.3	28.4	26.0	26.0	87	87	6.7
27	1008.8	30.6	27.9	25.9	26.1	90	75	25.5
28	1006.3	33.2	29.6	27.2	25.0	77	40	-
29	1005.3	34.2	30.0	27.5	25.1	76	52	-
30	1005.1	33.6	30.4	28.1	26.0	78	34	-
31	1003.0	33.6	30.8	28.7	25.6	75	16	-
平均/總值 Mean/Total	1005.3	32.6	29.8	27.6	25.9	80	70	260.5
正常* Normal*	1005.7	31.4	28.8	26.8	25.1	81	69	376.5
觀測站 Station	天文台 Hong Kong Observatory							

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

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

天文台於七月二十九日 14 時 25 分錄得本月最高氣溫 34.2 °C。

The maximum air temperature recorded at the Hong Kong Observatory was 34.2 °C at 1425 HKT on 29 July.

天文台於七月二十七日 5 時 14 分錄得本月最低氣溫 25.9 °C。

The minimum air temperature recorded at the Hong Kong Observatory was 25.9 °C at 0514 HKT on 27 July.

天文台於七月二十二日 15 時 40 分錄得本月最高瞬時降雨率 212 毫米/小時。

The maximum instantaneous rate of rainfall recorded at the Hong Kong Observatory was 212 millimetres per hour at 1540 HKT on 22 July.

* 1981-2010 氣候平均值 (除特別列明外) (<http://www.hko.gov.hk/wxinfo/climat/normal/cnormal07.htm>)

* 1981-2010 Climatological normal, unless otherwise specified (<http://www.hko.gov.hk/wxinfo/climat/normal/enormal07.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 二零一四年七月香港氣象觀測摘錄(二)

4.1.2 Extract of Meteorological Observations in Hong Kong (Part 2), July 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
七月 July	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	1.6	10.98	3.5	170	20.6
2	0	6.6	18.57	4.4	200	13.5
3	0	10.6	24.72	6.1	230	18.1
4	1	11.0	26.71	7.2	220	15.6
5	0	9.9	23.97	7.3	220	15.1
6	0	7.5	20.60	N.A.	230	14.4
7	1	0.9	6.84	1.6	230	8.9
8	3	7.2	16.67	4.0	280	9.1
9	5	9.7	23.13	5.3	170	10.1
10	0	5.7	17.70	5.7	210	12.0
11	0	2.9	14.21	3.6	210	11.5
12	0	5.1	18.60	5.2	190	25.3
13	0	6.2	18.24	4.9	210	17.4
14	0	7.1	19.00	5.1	220	16.3
15	0	9.1	24.00	5.3	210	15.4
16	0	11.1	25.79	6.3	050	11.1
17	0	4.4	15.79	5.2	070	41.6
18	0	0.3	5.78	5.3	130	49.3
19	0	6.6	20.71	3.6	150	27.6
20	0	9.0	24.35	6.0	120	12.0
21	1	5.0	16.67	5.3	030	5.0
22	3	8.1	20.29	5.7	270	16.4
23	0	10.8	22.64	5.7	270	39.7
24	0	1.4	10.38	3.1	240	37.3
25	0	7.9	22.26	6.0	230	17.6
26	0	4.8	13.96	7.1	160	19.2
27	0	5.1	16.60	6.0	130	17.9
28	0	11.7	27.91	6.8	070	10.6
29	0	8.8	21.80	5.6	020	6.8
30	0	10.5	25.31	6.1	030	8.9
31	0	10.9	24.35	6.8	250	19.1
平均/總值 Mean/Total	14	217.5	19.31	159.8 [^]	220	18.2
正常* Normal*	15.9 §	212.0	17.17	146.2	230	21.3
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

橫瀾島於七月十七日 19 時 19 分錄得本月最高陣風 96 公里/小時，風向 090 度。

The maximum gust peak speed recorded at Waglan Island was 96 kilometres per hour from 090 degrees at 1919 HKT on 17 July.

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 instrumental 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/cnormal07.htm>)

* 1981-2010 Climatological normal, unless otherwise specified (<http://www.hko.gov.hk/wxinfo/climat/normal/enormal07.htm>)

§ 1997-2013 平均值

§ 1997-2013 Mean value

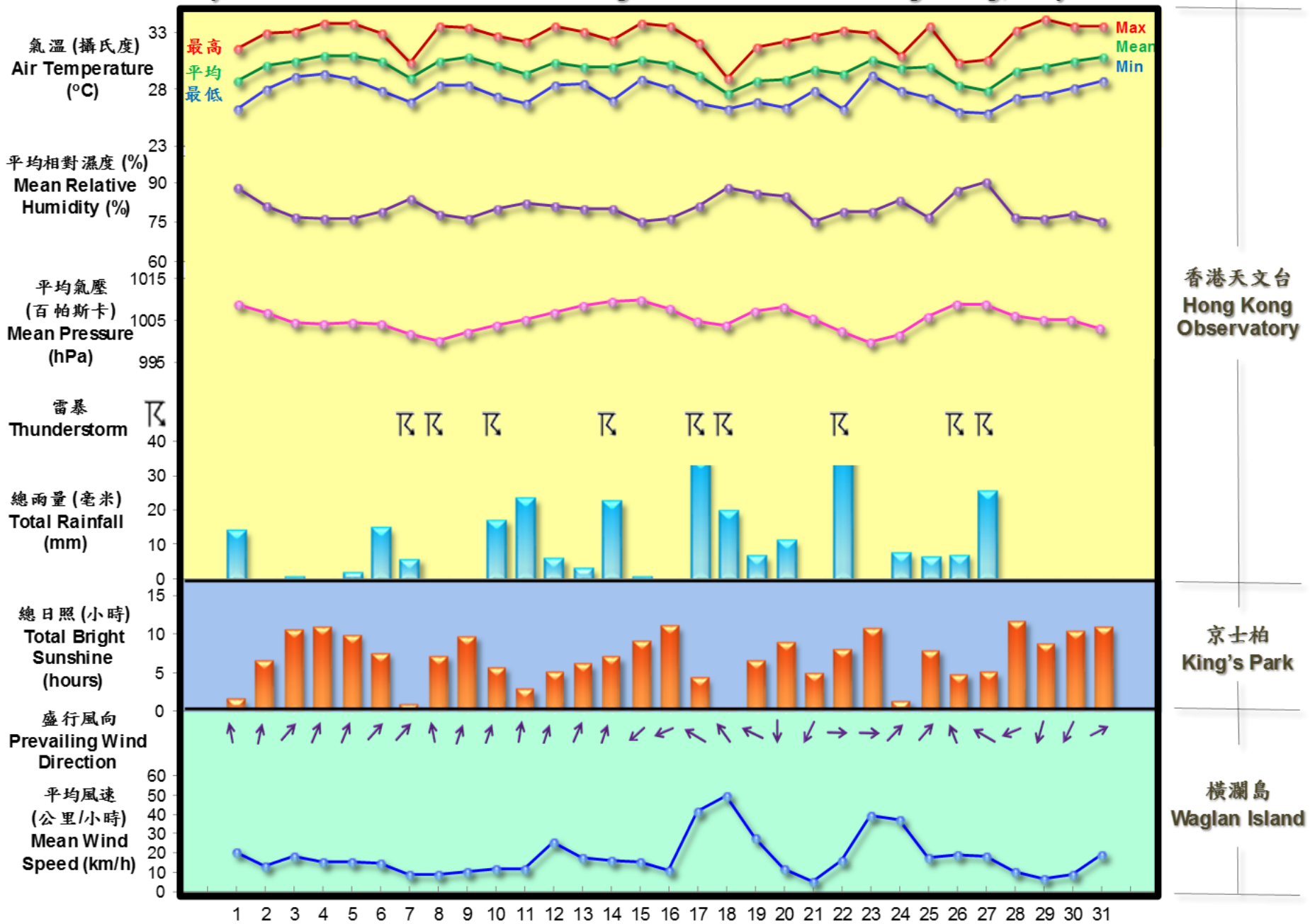
^ 共 30 日之總值

^ Total for 30 days

4.2 2014年7月部分香港氣象要素的每日記錄

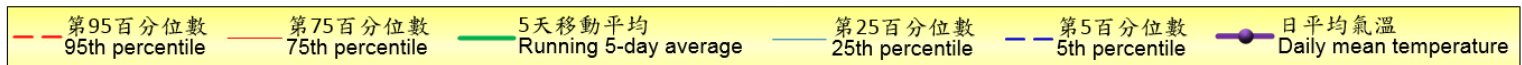
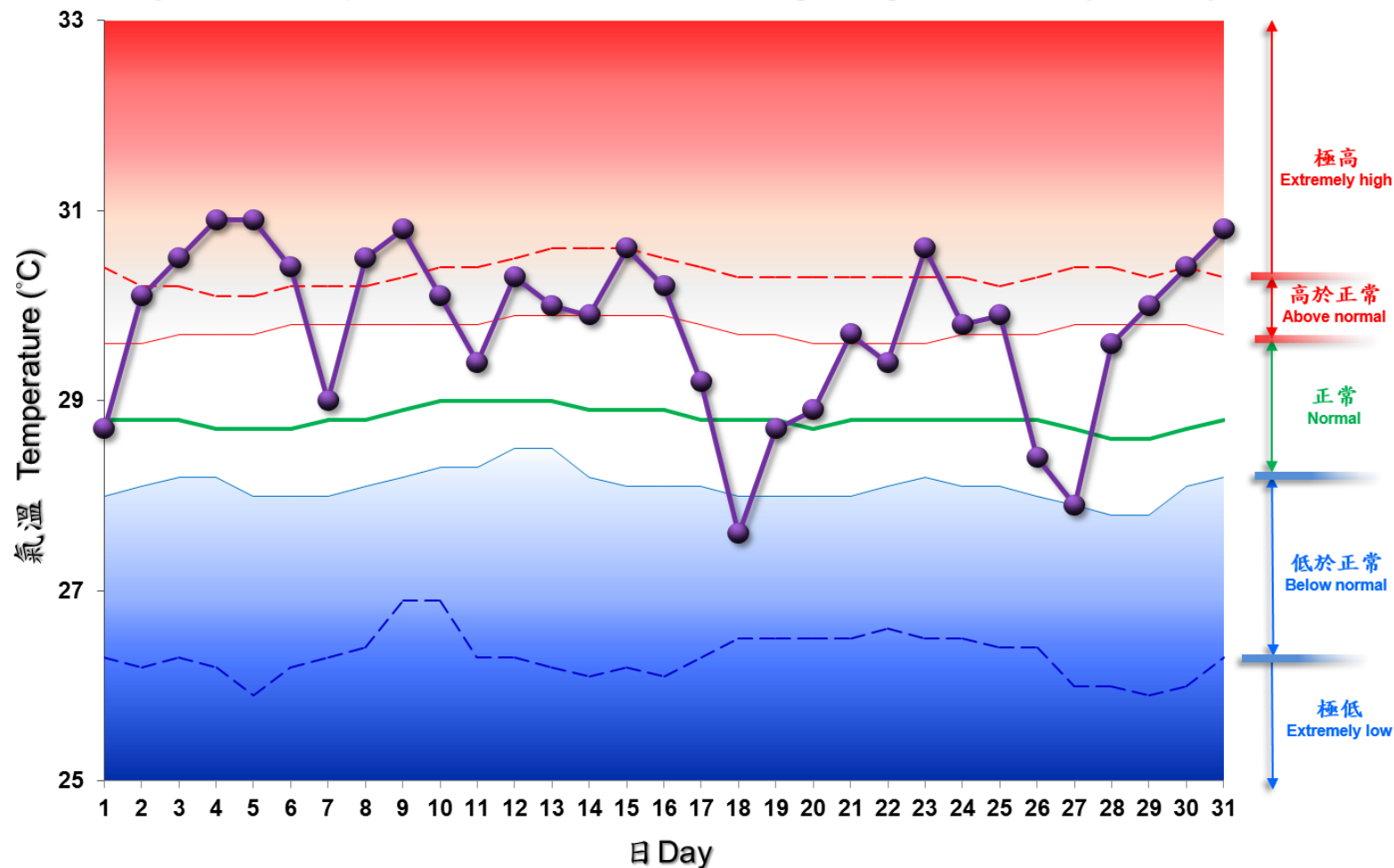
4.2

Daily Values of Selected Meteorological Elements for Hong Kong, July 2014



4.3 2014年7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 July 2014



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