

3.4 颱風海鷗 (1415)：二零一四年九月十二日至十七日

海鷗是香港天文台在二零一四年第四個需要發出熱帶氣旋警告信號的熱帶氣旋，也是今年唯一需要發出八號烈風或暴風信號的熱帶氣旋。

熱帶低氣壓海鷗於九月十二日早上在馬尼拉以東約1 430公里的北太平洋西部上空形成，向西北偏西方向移動，並逐漸增強為颱風。海鷗於九月十四日晚上橫過呂宋北部，翌日早上進入南海後繼續迅速移動。它在九月十六日上午於海南島東北部文昌市附近登陸前達到其最高強度，中心附近最高持續風速為每小時140公里。海鷗當日下午橫過北部灣，晚上於越南北部登陸，移入內陸及逐漸減弱，最後於九月十七日下午在雲南減弱為一個低壓區。

根據報章報導，海鷗吹襲菲律賓期間，一艘渡輪在菲律賓中部海面沉沒，造成三人死亡、三人失蹤。在中國，海鷗在海南島、廣東西部及廣西等地造成嚴重破壞，最少有三人死亡、一人失蹤及大約600萬人受災，海陸空交通癱瘓。而海鷗引致的風暴潮亦令沿海地區出現海水倒灌，部分地區嚴重水浸，其中海口潮位是一九七三年有記錄以來最高。澳門內港亦因海水倒灌，多處地區水浸。一艘貨輪在澳門西南約20公里海面失去動力，14名船員獲救，其中一人受傷。

由於海鷗移動迅速和環流廣闊，香港天文台於九月十四日晚上11時35分已發出一號戒備信號，當時海鷗位於香港之東南約850公里，成為自一九八九年颱風戈登以來首個在香港800公里範圍外發出一號戒備信號的熱帶氣旋。九月十五日早上本港吹和緩至清勁東北風。隨著海鷗穩定地靠近華南沿岸，天文台於當日下午12時40分發出三號強風信號，當時海鷗位於香港之東南偏南約510公里。下午本港風勢逐漸增強，吹清勁至強風程度東至東北風，離岸及高地間中吹烈風。由於海鷗繼續移近華南沿岸，天文台於晚上10時30分發出八號東南烈風或暴風信號，當時海鷗位於香港以南約370公里。晚間本港普遍吹烈風程度東至東南風，離岸吹暴風，高地風力更間中達颶風程度。本港熱帶氣旋警告系統網絡的八個參考測風站中有四個站的持續風力曾達烈風程度或以上。

海鷗於九月十六日凌晨時分最接近香港，在香港西南偏南約370公里處掠過。隨後海鷗逐漸遠離，本港風力逐漸減弱，天文台於當天早上10時40分改發三號強風信號，取代八號東南烈風或暴風信號。下午海鷗繼續移離本港，天文台於下午8時40分改發一號戒備信號。直至翌日凌晨海鷗進一步移入越南北部內陸，天文台於上午2時10分取消所有熱帶氣旋警告信號。但受到海鷗外圍環流與中國東南沿岸一道高壓脊的共同影響，本港離岸海域仍然吹強風，天文台隨即發出強烈季候風信號，直至當日下午6時15分取消。

在海鷗的影響下，長洲泳灘錄得的最高每小時平均風速為96公里，而昂坪更錄得每小時175公里的最高陣風。大埔滘錄得最高潮位3.28米(海圖基準面以上)及最大風暴潮(天文潮高度以上) 1.20米。各站錄得的最低瞬時海平面氣壓如下：

| 站 | 最低瞬時海平面氣壓 (百帕斯卡) | 日期/月份 | 時間 |
|---------|---------------------|-------|--------------|
| 香港天文台總部 | 998.7 | 16/9 | 上午 12 時 36 分 |
| 長洲 | 997.6 | 16/9 | 上午 3 時 47 分 |
| 香港國際機場 | 998.0 | 16/9 | 上午 3 時 59 分 |
| 京士柏 | 998.3 | 16/9 | 上午 12 時 38 分 |
| 流浮山 | 998.7 | 16/9 | 上午 12 時 53 分 |
| 橫瀾島 | 997.5 | 16/9 | 上午 3 時 45 分 |

九月十五日本港初時部分時間有陽光，天氣酷熱。受海鷗的外圍雨帶影響，稍後漸轉密雲，有狂風驟雨及幾陣雷暴。海鷗在九月十六日繼續為本港帶來狂風大驟雨及幾陣雷暴。兩天內本港大部分地區錄得超過50毫米的雨量，港島西部及新界北部的雨量更超過100毫米。

海鷗吹襲香港期間最少有29人受傷，另有1 352宗塌樹報告、五宗水浸報告、一宗山泥傾瀉報告及多宗高空墜物意外。葵涌打磚坪街有一幅棚架倒塌，導致一輛貨車及一輛小巴損毀。荃灣福來邨有一棵大樹倒塌，部分樹枝擊碎窗戶並插入民居。海鷗引致的風暴潮令部分低窪地區出現海水倒灌，當中鯉魚門近岸多間村屋出現水浸，多名居民需要疏散。將軍澳南海濱長廊行人路亦被海浪破壞。新界約300公頃的農地受到影響。香港國際機場有131班航班取消和1 234班航班延誤，另外有20班需要轉飛其他地方。

表3.4.1- 3.4.4 分別是海鷗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3.4.1 - 3.4.2 分別為海鷗的路徑圖和本港的雨量分佈圖。圖3.4.3顯示香港各站錄得的風向和風速。圖3.4.4 - 3.4.5分別顯示天文台總部錄得的海平面氣壓和鰲魚涌錄得的潮位圖。圖3.4.6- 3.4.7分別顯示海鷗的衛星圖像及雷達圖像。海鷗在香港造成的破壞可參見圖3.4.8及3.4.9。

3.4 Typhoon Kalmaegi (1415): 12 – 17 September 2014

Kalmaegi was the fourth tropical cyclone necessitating the issuance of tropical cyclone warning signal by the Hong Kong Observatory in 2014. It was also the only tropical cyclone requiring the issuance of Gale or Storm Wind Signal No. 8 in the year.

Kalmaegi formed as a tropical depression over the western North Pacific about 1 430 km east of Manila on the morning of 12 September. It moved west-northwestwards and intensified gradually into a typhoon. Kalmaegi moved across the northern part of Luzon on the night of 14 September and maintained a good pace after entering the South China Sea the next morning. It reached peak intensity with an estimated sustained wind of 140 km/h near its centre before making landfall near Wenchang over the northeastern part of Hainan Island on the morning of 16 September. After crossing Beibu Wan in the afternoon, Kalmaegi made landfall over the northern part of Vietnam that night. Moving inland and weakening gradually, it finally became an area of low pressure over Yunnan on the afternoon of 17 September.

According to press reports, three people were killed and three others were missing after a passenger ferry sank over the seas off the central part of the Philippines during the passage of Kalmaegi. In China, Kalmaegi also wreaked havoc in Hainan Island, western Guangdong and Guangxi, resulting in at least three deaths, one missing and about 6 million people affected. Transportation services were suspended. Storm surge triggered by Kalmaegi caused backflow of sea water in coastal areas, resulting in severe flooding in some areas. Sea level at Haikou was the highest since record began in 1973. There was also backflow of sea water inside the harbour of Macao, causing flooding in many places. A cargo ship lost power at seas about 20 km southwest of Macao, 14 crewmen were rescued with one injured.

As Kalmaegi was a fast-moving storm with an extensive circulation, the Standby Signal No. 1 was issued by the Hong Kong Observatory at 11:35 p.m. on 14 September when it was about 850 km southeast of the territory. It was the first time the Standby Signal No. 1 was issued for a tropical cyclone centred outside 800-km range of Hong Kong since Typhoon Gordon in 1989. Local winds were moderate to fresh from the northeast on the morning of 15 September. With Kalmaegi moving steadily towards the south China coast, the Strong Wind Signal No. 3 was issued at 12:40 p.m. when it was about 510 km south-southeast of Hong Kong. Local winds strengthened gradually in the afternoon, becoming fresh to strong east to northeasterlies and occasionally reaching gale force offshore and on high ground. As Kalmaegi continued to edge closer to the south China coast, the No. 8 Southeast Gale or Storm Signal was issued at 10:30 p.m. when Kalmaegi was about 370 km south of Hong Kong. East to southeasterly gales generally affected the territory overnight, with storm force winds offshore and winds even reaching hurricane force occasionally on high ground. Sustained gale force winds or above were attained at four out of the eight reference stations in the network of reference anemometers under the tropical cyclone warning system of Hong Kong.

Kalmaegi was closest to the territory in the small hours of 16 September as it skirted past about 370 km to the south-southwest. Winds subsided gradually as Kalmaegi moved away from Hong Kong. The No. 8 Southeast Gale or Storm Signal was replaced by the Strong Wind Signal No. 3 at 10:40 a.m. that morning. With Kalmaegi moving further away from the territory in the afternoon, the Standby Signal No. 1 was issued at 8:40 p.m. As Kalmaegi moved further inland into the northern part of Vietnam, all tropical cyclone warning signals were cancelled at 2:10 a.m. Nevertheless, strong winds still affected the offshore waters of Hong Kong under the combined effect of the outer circulation of Kalmaegi and a ridge of high pressure along the southeastern coast of China. The Strong Monsoon Signal was issued immediately afterwards and lasted till 6:15 p.m. that day.

Under the influence of Kalmaegi, a maximum hourly mean wind of 96 km/h was recorded at Cheung Chau Beach, while maximum gusts of 175 km/h were recorded at Ngong Ping. A maximum sea level (above chart datum) of 3.28 m and a maximum storm surge (above astronomical tide) of 1.20 m were recorded at Tai Po Kau. The lowest instantaneous mean sea-level pressures recorded at some selected stations are as follows:-

| Station | Lowest instantaneous mean sea-level pressure (hPa) | Date/ Month | Time |
|------------------------------------|--|----------------|------------|
| Hong Kong Observatory Headquarters | 998.7 | 16/9 | 12:36 a.m. |
| Cheung Chau | 997.6 | 16/9 | 03:47 a.m. |
| Hong Kong International Airport | 998.0 | 16/9 | 03:59 a.m. |
| King's Park | 998.3 | 16/9 | 12:38 a.m. |
| Lau Fau Shan | 998.7 | 16/9 | 12:53 a.m. |
| Waglan Island | 997.5 | 16/9 | 03:45 a.m. |

Local weather was very hot with sunny periods at first on 15 September. Under the influence of the outer circulation of Kalmaegi, the weather became cloudy to overcast with squally showers and a few thunderstorms in the latter part of the day. The outer rainbands of Kalmaegi continued to bring heavy squally showers and a few thunderstorms to the territory on 16 September. More than 50 millimetres of rainfall were recorded over most parts of the territory during these two days, with rainfall over the northern part of the New Territories and the western part of Hong Kong Island exceeding 100 millimetres.

In Hong Kong, at least 29 people were injured during the passage of Kalmaegi. There were 1 352 reports of fallen trees, five reports of flooding, one report of landslide and many incidents of blown down objects. A scaffolding at Ta Chuen Ping Street of Kwai Chung collapsed, damaging a lorry and a minibus. A tree at Fuk Loi Estate in Tsuen Wan fell down, with some of the branches smashing through the glass windows of a residential flat. Storm surge triggered by Kalmaegi caused backflow of sea water in some low lying areas. Village houses near the coast at Lei Yue Mun became flooded and many residents had to be evacuated. The pavement at the South

Waterfront Promenade at Tseung Kwan O was also damaged by sea waves. About 300 hectares of farmland in the New Territories were affected. At the Hong Kong International Airport, 131 flights were cancelled, 1 234 delayed and 20 aircraft were diverted.

Information on the maximum wind, period of strong and gale force winds, daily rainfall and maximum sea level reached in Hong Kong during the passage of Kalmaegi is given in Tables 3.4.1 - 3.4.4 respectively. Figures 3.4.1 - 3.4.2 show respectively the track of Kalmaegi and the rainfall distribution for Hong Kong. Figure 3.4.3 shows the winds recorded at various stations in Hong Kong. Figures 3.4.4 – 3.4.5 show respectively trace of mean sea-level pressure recorded at the Hong Kong Observatory's Headquarters and tide and storm surge recorded at Quarry Bay. Figures 3.4.6 – 3.4.7 show respectively a satellite imagery and a radar imagery of Kalmaegi. Some damages caused by Kalmaegi in Hong Kong are illustrated in Figures 3.4.8 and 3.4.9.

表 3.4.1 在海鷗影響下，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 3.4.1 Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Kalmaegi were in force

| 站 (參閱圖 1.1) Station (See Fig. 1.1) | | 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 | 96 | 16/9 | 08:13 | 東南偏東 | ESE | 58 | 16/9 | 02:00 |
| 中環碼頭 | Central Pier | 東 | E | 96 | 16/9 | 06:03 | 東 | E | 56 | 15/9 | 23:00 |
| 長洲 | Cheung Chau | 東南 | SE | 137 | 16/9 | 01:02 | 東南偏東 | ESE | 85 | 16/9 | 08:00 |
| 長洲泳灘 | Cheung Chau Beach | 東 | E | 130 | 16/9 | 01:06 | 東 | E | 96 | 16/9 | 02:00 |
| 青洲 | Green Island | 東北 | NE | 117 | 15/9 | 23:27 | 東北 | NE | 77 | 16/9 | 00:00 |
| 香港國際機場 | Hong Kong International Airport | 東 | E | 108 | 16/9 | 00:27 | 東 | E | 62 | 16/9 | 01:00 |
| | | | | | | | 東 | E | 62 | 16/9 | 04:00 |
| 啟德 | Kai Tak | 東南偏東 | ESE | 87 | 16/9 | 01:10 | 東 | E | 43 | 16/9 | 11:00 |
| 京士柏 | King's Park | 東南 | SE | 99 | 16/9 | 01:58 | 東南 | SE | 49 | 16/9 | 02:00 |
| 流浮山 | Lau Fau Shan | 東北偏東 | ENE | 115 | 16/9 | 00:51 | 東北偏東 | ENE | 54 | 16/9 | 01:00 |
| 昂坪 | Ngong Ping | 東北偏東 | ENE | 175 | 16/9 | 00:15 | 東北偏東 | ENE | 118 | 16/9 | 00:00 |
| 北角 | North Point | 東 | E | 101 | 16/9 | 00:00 | 東 | E | 49 | 15/9 | 23:00 |
| | | | | | | | 東 | E | 49 | 16/9 | 05:00 |
| 坪洲 | Peng Chau | 東 | E | 113 | 16/9 | 00:26 | 東 | E | 75 | 16/9 | 00:00 |
| 平洲 | Ping Chau | 東 | E | 59 | 16/9 | 00:34 | 東 | E | 22 | 16/9 | 00:00 |
| 西貢 | Sai Kung | 東南 | SE | 94 | 16/9 | 01:44 | 東北偏東 | ENE | 59 | 16/9 | 01:00 |
| 沙洲 | Sha Chau | 東南 | SE | 92 | 16/9 | 09:40 | 東南 | SE | 65 | 16/9 | 10:00 |
| 沙螺灣 | Sha Lo Wan | 東 | E | 104 | 15/9 | 23:09 | 東 | E | 56 | 16/9 | 00:00 |
| 沙田 | Sha Tin | 東北 | NE | 77 | 16/9 | 00:33 | 東北偏東 | ENE | 25 | 16/9 | 01:00 |
| 石崗 | Shek Kong | 東 | E | 81 | 16/9 | 05:20 | 東 | E | 38 | 16/9 | 03:00 |
| 九龍天星碼頭 | Star Ferry (Kowloon) | 東 | E | 101 | 15/9 | 19:08 | 東 | E | 58 | 16/9 | 05:00 |
| 打鼓嶺 | Ta Kwu Ling | 東 | E | 87 | 16/9 | 06:56 | 東 | E | 31 | 16/9 | 08:00 |
| 大美督 | Tai Mei Tuk | 東北偏東 | ENE | 135 | 16/9 | 01:11 | 東 | E | 85 | 16/9 | 01:00 |
| 大帽山 | Tai Mo Shan | 東 | E | 169 | 16/9 | 01:37 | 東 | E | 110 | 16/9 | 03:00 |
| 大埔滘 | Tai Po Kau | 東南 | SE | 108 | 16/9 | 01:51 | 東 | E | 58 | 16/9 | 01:00 |
| 塔門 | Tap Mun | 東 | E | 90 | 16/9 | 00:50 | 東 | E | 45 | 16/9 | 01:00 |
| | | 東 | E | 90 | 16/9 | 00:52 | | | | | |
| 大老山 | Tate's Cairn | 東南偏東 | ESE | 139 | 16/9 | 01:09 | 東 | E | 88 | 16/9 | 05:00 |
| 將軍澳 | Tseung Kwan O | 東北 | NE | 76 | 15/9 | 23:42 | 東北 | NE | 20 | 15/9 | 22:00 |
| 青衣島 蜆殼油庫 | Tsing Yi Shell Oil Depot | - | - | 81 | 16/9 | 02:04 | - | - | 36 | 16/9 | 04:00 |
| | | - | - | 81 | 16/9 | 04:29 | - | - | 36 | 16/9 | 06:00 |
| | | - | - | 81 | 16/9 | 04:44 | | | | | |
| 屯門政府合署 | Tuen Mun Government Offices | 東南偏東 | ESE | 81 | 16/9 | 09:45 | 東南 | SE | 36 | 16/9 | 12:00 |
| 橫瀾島 | Waglan Island | 東 | E | 112 | 16/9 | 00:15 | 東 | E | 79 | 15/9 | 23:00 |
| 濕地公園 | Wetland Park | 東 | E | 83 | 16/9 | 01:05 | 東 | E | 34 | 16/9 | 01:00 |
| 黃竹坑 | Wong Chuk Hang | 東南 | SE | 108 | 16/9 | 00:50 | 東 | E | 41 | 16/9 | 00:00 |

- 沒有資料 - data not available

表 3.4.2 在海鷗影響下，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 3.4.2 Periods during which sustained strong and gale force winds were reached among the eight reference anemometers in the tropical cyclone warning system when warning signals for Kalmaegi were in force

| 站 (參閱圖 1.1) Station (See Fig. 1.1) | | 最初達到 強風*時間 Start time strong wind speed* was reached | | 最後達到 強風*時間 End time strong wind speed* was reached | | 最初達到 烈風#時間 Start time gale force wind speed# was reached | | 最後達到 烈風#時間 End 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 | 15/9 | 14:57 | 17/9 | 02:10 | 15/9 | 21:59 | 16/9 | 20:39 |
| 香港國際 機場 | Hong Kong International Airport | 15/9 | 19:26 | 16/9 | 20:33 | 15/9 | 21:57 | 16/9 | 08:42 |
| 啟德 | Kai Tak | 16/9 | 00:53 | 16/9 | 12:51 | - | | | |
| 流浮山 | Lau Fau Shan | 15/9 | 22:20 | 16/9 | 10:03 | 16/9 | 00:51 | 16/9 | 00:57 |
| 西貢 | Sai Kung | 15/9 | 18:53 | 16/9 | 13:50 | 16/9 | 00:09 | 16/9 | 00:52 |
| 打鼓嶺 | Ta Kwu Ling | 16/9 | 06:59 | 16/9 | 07:00 | - | | | |

沙田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 Sha Tin and Tsing Yi Shell Oil Depot.

- 未達到指定的風速
- not attaining the specified wind speed

* 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

十分鐘平均風速達每小時 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 winds or gale winds were recorded. Note that the winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.4.3 海鷗影響香港期間，香港天文台總部及其他各站所錄得的日雨量
 Table 3.4.3 Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Kalmaegi

| 站 (參閱圖 3.4.2) Station (See Fig. 3.4.2) | | | 九月十五日 15 Sep | 九月十六日 16 Sep | 總雨量 (毫米) Total (mm) |
|---|-----|---------------|-----------------|-----------------|------------------------|
| 香港天文台 Hong Kong Observatory | | | 17.6 | 51.6 | 69.2 |
| 香港國際機場 Hong Kong International Airport (HKA) | | | 2.4 | 35.7 | 38.1 |
| 長洲 Cheung Chau (CCH) | | | 9.0 | 9.0 | 18.0 |
| H23 | 香港仔 | Aberdeen | 11.5 | 43.5 | 55.0 |
| N05 | 粉嶺 | Fanling | [32.5] | [66.0] | [98.5] |
| N13 | 糧船灣 | High Island | 9.0 | [29.0] | [38.0] |
| K04 | 佐敦谷 | Jordan Valley | [18.0] | 33.0 | [51.0] |
| N06 | 葵涌 | Kwai Chung | [12.5] | 56.0 | [68.5] |
| H12 | 半山區 | Mid Levels | 15.0 | 70.0 | 85.0 |
| N09 | 沙田 | Sha Tin | 18.5 | 45.5 | 64.0 |
| H19 | 筲箕灣 | Shau Kei Wan | 10.5 | 39.0 | 49.5 |
| SEK | 石崗 | Shek Kong | 26.0 | 59.5 | 85.5 |
| K06 | 蘇屋邨 | So Uk Estate | 15.0 | 52.5 | 67.5 |
| R31 | 大美督 | Tai Mei Tuk | 34.5 | 34.5 | 69.0 |
| R21 | 踏石角 | Tap Shek Kok | 4.0 | 21.0 | 25.0 |
| N17 | 東涌 | Tung Chung | 4.5 | 34.0 | 38.5 |
| R27 | 元朗 | Yuen Long | 12.0 | [40.0] | [52.0] |

註：[] 基於不完整的每小時雨量數據。

Note : [] based on incomplete hourly data.

表 3.4.4 海鷗影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
 Table 3.4.4 Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Kalmaegi

| 站 (參閱圖 1.1) Station (See Fig. 1.1) | | 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 |
| 鯪魚涌 | Quarry Bay | 3.03 | 16/9 | 02:11 | 0.92 | 16/9 | 02:11 |
| 石壁 | Shek Pik | 3.20 | 16/9 | 02:31 | 1.03 | 16/9 | 02:31 |
| 大埔滘 | Tai Po Kau | 3.28 | 16/9 | 02:20 | 1.20 | 16/9 | 02:20 |

大廟灣、尖鼻咀、橫瀾島 - 沒有資料

Tai Miu Wan, Tsim Bei Tsui, Waglan Island - data not available

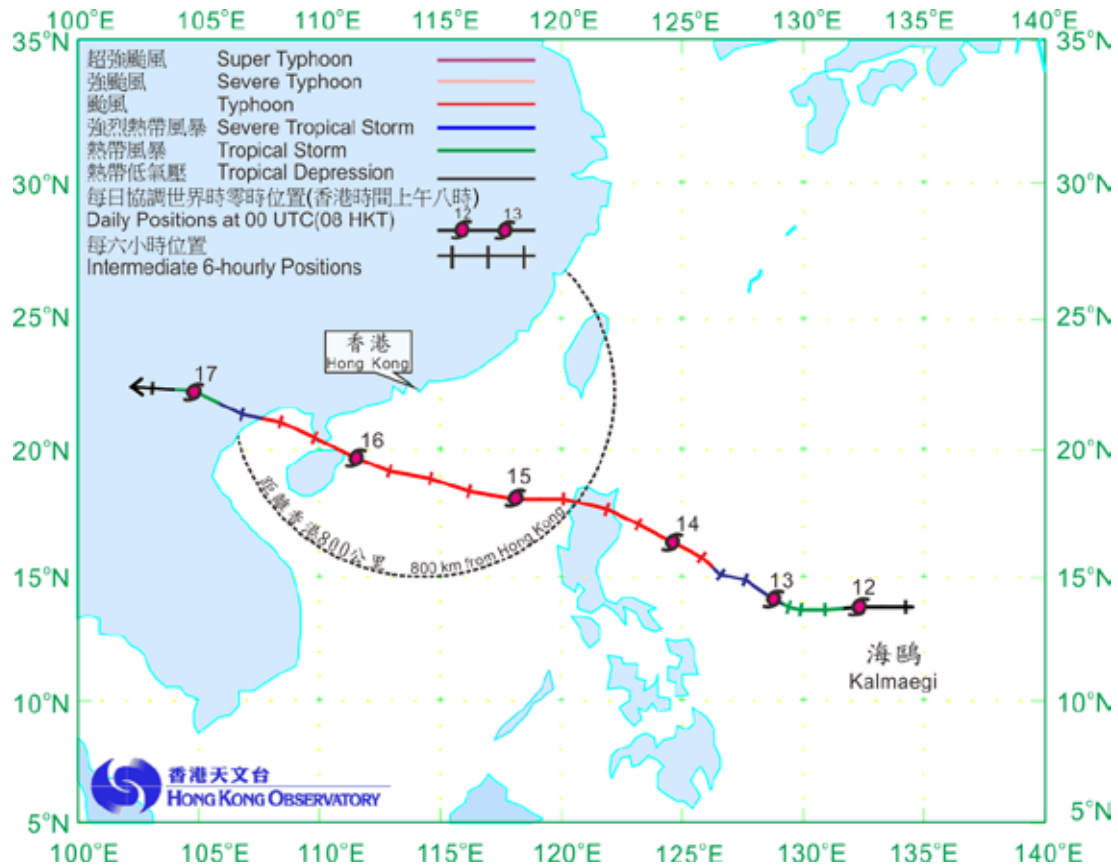


圖 3.4.1 颱風海鷗(1415)在二零一四年九月十二日至十七日的路徑圖。
Figure 3.4.1 Track of Typhoon Kalmaegi (1415) on 12 – 17 September 2014.

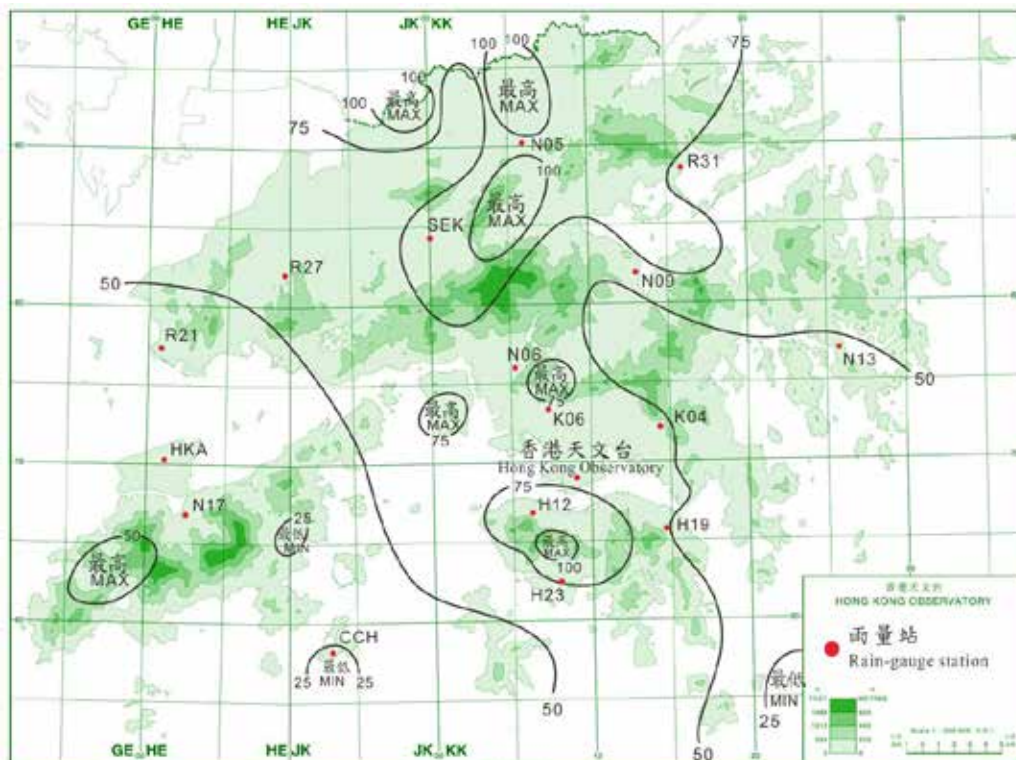


圖 3.4.2 二零一四年九月十五日至十六日的雨量分佈(等雨量線單位為毫米)。
Figure 3.4.2 Rainfall distribution on 15 – 16 September 2014 (isohyets are in millimetres).




「M」：表示該站的風向儀在維修中 Wind direction sensor under maintenance

「VRB」：表示風向不定 Variable winds

「」：表示東風，風速每小時 18 公里 Easterly wind of 18 km/h

「」：表示東風，風速每小時 90 公里 Easterly wind of 90 km/h

「」：表示該站位於離平均海平面 500 米以上的地方
Station higher than 500 metres above mean sea level

註：沙田、青衣及屯門當時錄得的十分鐘平均風速為分別為每小時 25、30 及 13 公里
Note: The 10-minute mean wind speed recorded at that time at Sha Tin, Tsing Yi and Tuen Mun were 25, 30 and 13 km/h respectively

圖 3.4.3 二零一四年九月十六日上午 12 時 10 分香港各站錄得的十分鐘平均風向和風速。颱風海鷗於當日凌晨時分最接近香港。

Figure 3.4.3 10-minute mean wind direction and speed recorded at various stations in Hong Kong at 12:10 a.m. on 16 September 2014. Typhoon Kalmaegi was closest to the territory in the small hours of that day.

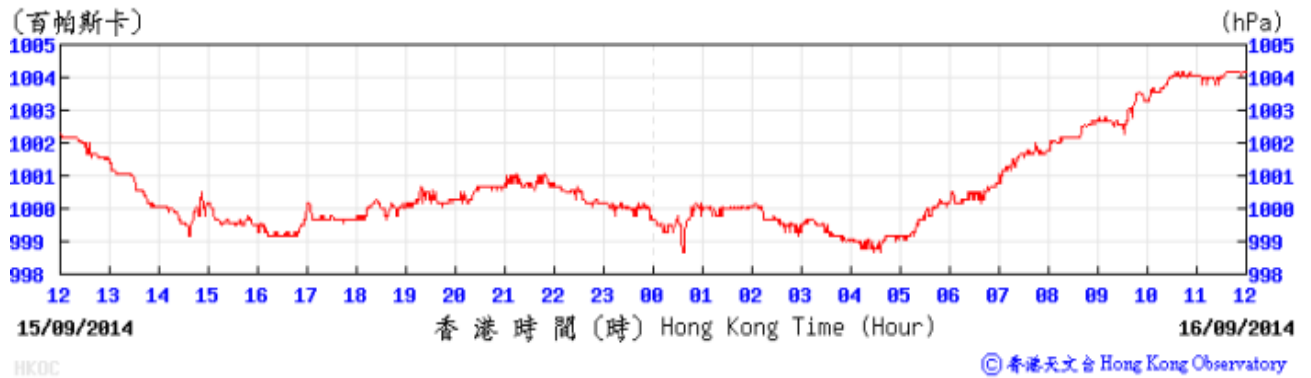


圖 3.4.4 二零一四年九月十五日至十六日天文台總部錄得的海平面氣壓。
Figure 3.4.4 Trace of mean sea-level pressure recorded at the Hong Kong Observatory's Headquarters on 15 - 16 September 2014.

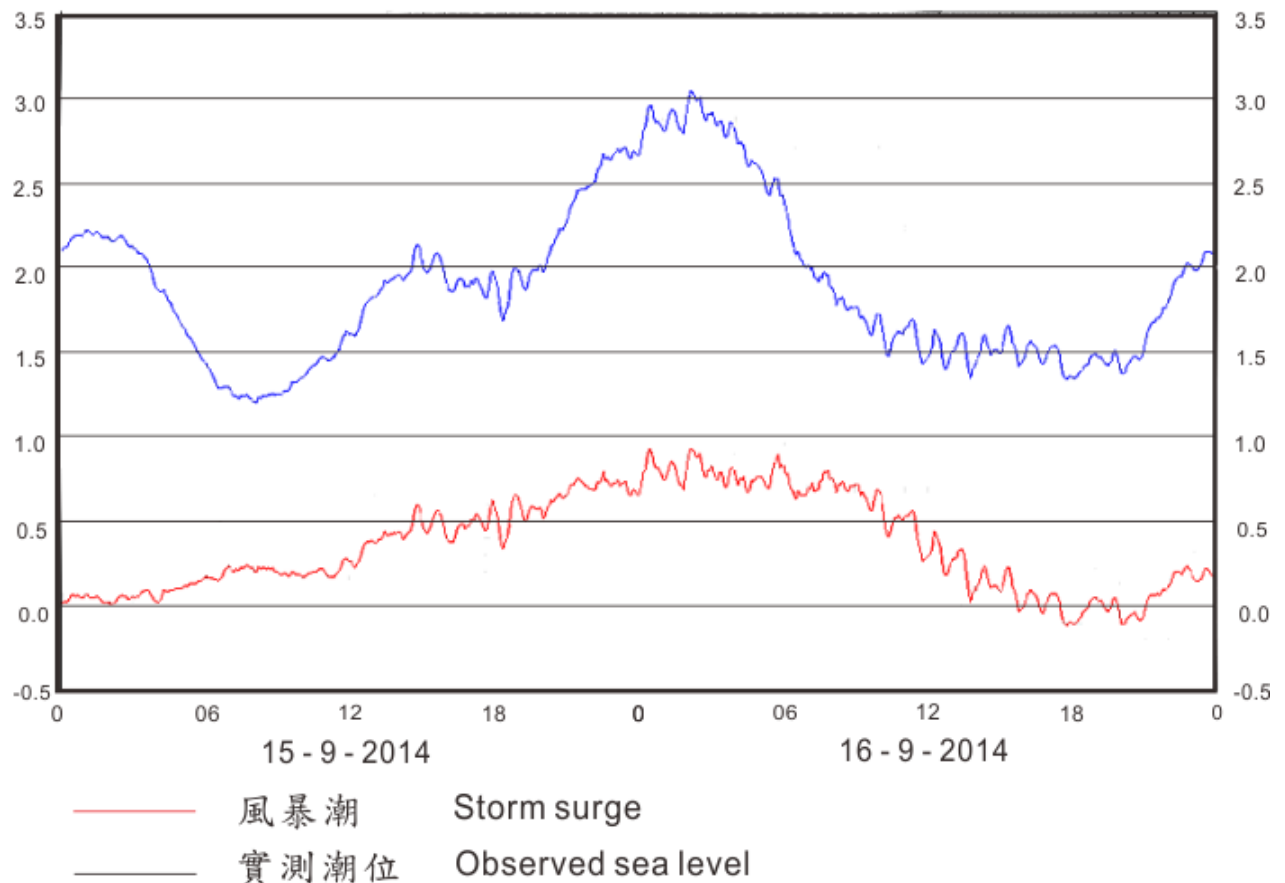


圖 3.4.5 二零一四年九月十五日至十六日鰂魚涌錄得的潮位圖(潮位為海圖基準面以上，單位為米)。
Figure 3.4.5 Tide and storm surge recorded at Quarry Bay for 15 - 16 September 2014 (Sea level in metres above chart datum).

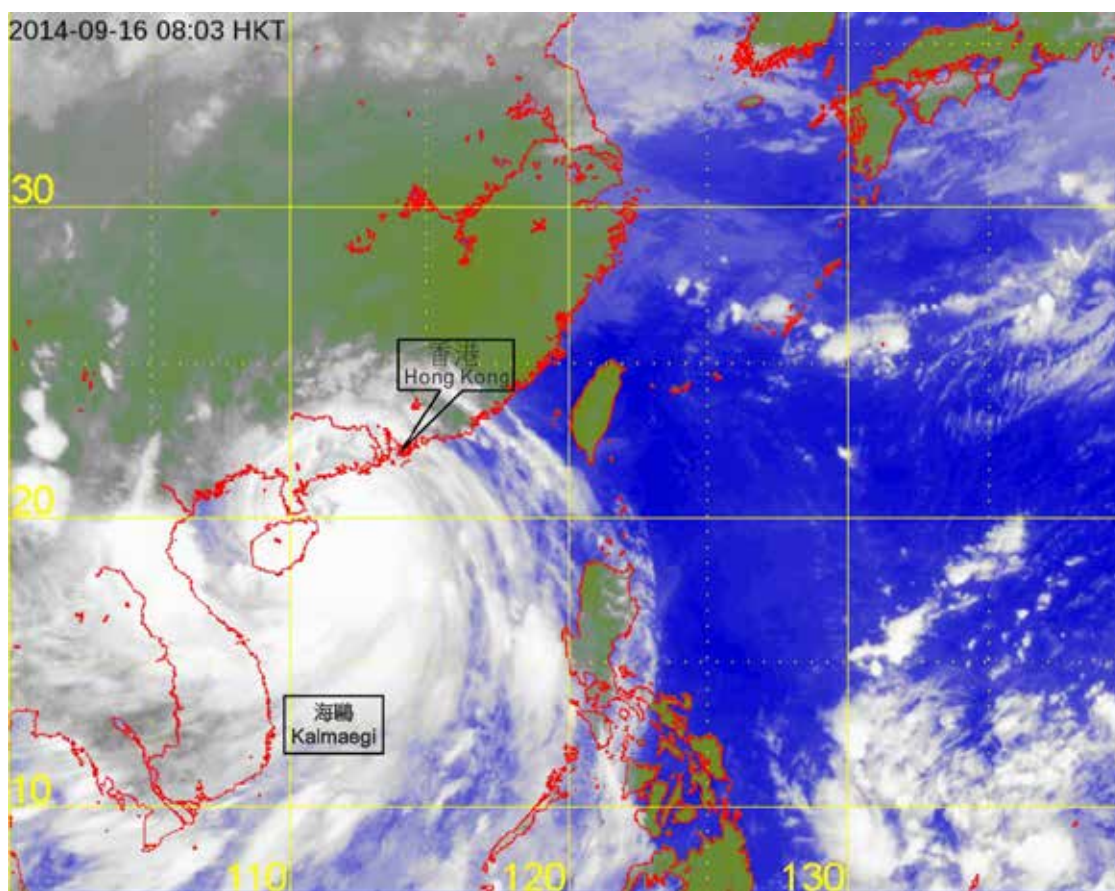


圖 3.4.6 颱風海鷗在二零一四年九月十六日上午 8 時左右的紅外線衛星圖片，當時海鷗達到其最高強度，中心附近最高持續風速估計為每小時 140 公里。

Figure 3.4.6 Infra-red satellite imagery of Typhoon Kalmaegi around 8 a.m. on 16 September 2014 at peak intensity with estimated maximum sustained winds of 140 km/h 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).]

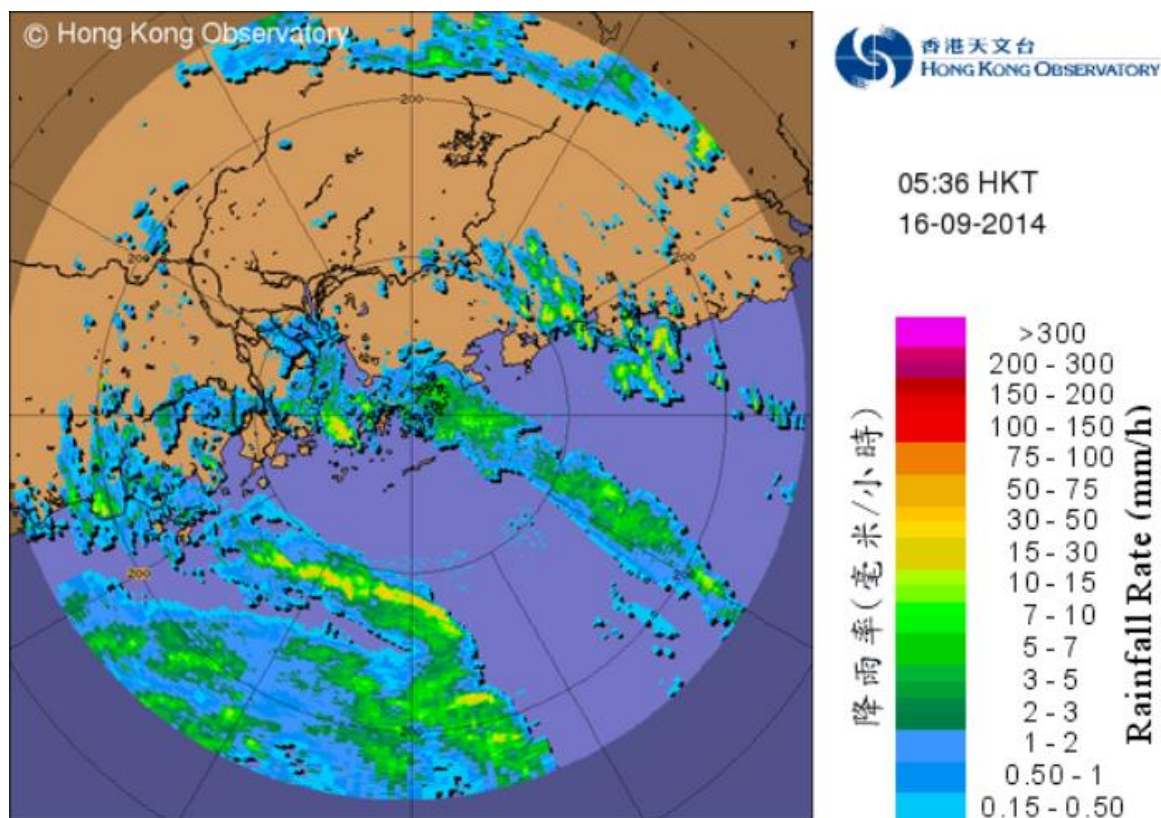


圖 3.4.7 二零一四年九月十六日上午 5 時 36 分的雷達回波圖像，當時颱風海鷗的中心正集結在香港之西南偏南約 380 公里，與其相關的雨帶正影響本港。

Figure 3.4.7 Image of radar echoes at 5:36 a.m. on 16 September 2014, when the centre of Typhoon Kalmaegi was located about 380 km south-southwest of Hong Kong. Rainbands associated with Kalmaegi were affecting the territory.



圖 3.4.8 颱風海鷗引致的風暴潮令鯉魚門馬環村出現海水倒灌(相片由星島日報提供)。

Figure 3.4.8 Storm surge triggered by Typhoon Kalmaegi caused backflow of sea water at Ma Wan Village at Lei Yue Mun. (Photo courtesy of Sing Tao Daily).



圖 3.4.9 颱風海鷗吹襲期間，葵涌打磚坪街有一幅棚架倒塌，導致一輛貨車及一輛小巴損毀(相片由星島日報提供)。

Figure 3.4.9 A scaffolding at Ta Chuen Ping Street of Kwai Chung collapsed, damaging a lorry and a minibus during the passage of Typhoon Kalmaegi. (Photo courtesy of Sing Tao Daily).