

3.2 強烈熱帶風暴黃蜂（0214）：二零零二年八月十五至二十日

黃蜂是本年第二個令香港天文台發出警告信號的熱帶氣旋。黃蜂跟上一個影響本港的強烈熱帶風暴北冕一樣，都在南海形成。

黃蜂於八月十五日在西沙島東南偏南約280公里處發展為一個熱帶低氣壓，最初兩天向東北緩慢移動，八月十七日轉向西北偏西推進。黃蜂於八月十八日增強為一個熱帶風暴後再轉向西北偏北移動。八月十九日，黃蜂在東海的反氣旋影響下加速移向廣東西部海岸，並於當日下午增強為一個強烈熱帶風暴，中心風力約為每小時90公里。黃蜂掠過海南島東北岸後，於同日晚上在湛江附近登陸，其後迅速減弱，最終在廣西消散。

與黃蜂相關的大雨在中國西南部造成水浸。在廣西，山泥傾瀉及房屋倒塌導致最少八人死亡，另有數以千計居民被洪水圍困，部份地區的通訊及供電服務中斷。據報導黃蜂在廣西造成的直接經濟損失逾三億元人民幣。當黃蜂掠過海南島時，當地機場被逼關閉，來往廣東的海上交通亦要暫停。

在香港，一號戒備信號在八月十七日晚上10時45分發出，當時黃蜂位於香港南面約660公里。本港初時吹和緩至清勁的東至東北風，但其後兩天隨著黃蜂逐步增強及移近廣東西部海岸，本港轉吹東南風，離岸及高地風力達強風程度。黃蜂的外圍雨帶亦為本港帶來零散狂風驟雨。黃蜂在八月十九日晚上最接近香港，當時它位於香港西南偏西約390公里。天文台於八月十八日下午4時左右錄得最低瞬時海平面氣壓1000.9百帕斯卡。隨著黃蜂移入內陸及減弱，一號戒備信號在八月二十日上午6時30分取消。

在黃蜂影響本港期間，一艘內河船在香港西南面約60公里處擱淺，所有船員均由政府飛行服務隊救起。在牛頭角有一人被跌下來的簷篷擦傷，另一人則在屯門被吹斷的樹枝割傷肩部，香港島及新界亦有大樹被風吹倒。

表3.2.1-3.2.3分別是黃蜂影響香港時各站錄得的最高風速、日雨量及最高潮汐資料。圖3.2.1-3.2.3則分別是黃蜂的路徑圖、香港雨量分佈圖及衛星雲圖。

3.2 Severe Tropical Storm Vongfong (0214) : 15 – 20 August 2002

Vongfong was the second tropical cyclone that necessitated the issuance of warning signal this year. Like the previous severe tropical storm Kammuri, Vongfong also formed over the South China Sea.

Vongfong developed as a tropical depression at about 280 km south-southeast of Xisha Dao on 15 August. It moved slowly to the northeast in the first two days and turned to the west-northwest on 17 August. Vongfong intensified into a tropical storm and moved towards north-northwest on 18 August. Under the steering flow of an anticyclone over the East China Sea, Vongfong accelerated towards the west coast of Guangdong on 19 August and intensified into a severe tropical storm with a maximum wind speed of about 90 km/h near its centre that afternoon. Vongfong skirted the northeastern coast of Hainan and then made landfall near Zhangjiang the same night. It weakened rapidly after landfall and dissipated over Guangxi on 20 August.

The heavy rain brought by Vongfong triggered flooding over southwest China. In Guangxi, landslides and collapsed houses claimed at least eight lives and thousands of people were trapped by floods. Communication and power supplies of some districts were also interrupted. The reported direct economic losses in Guangxi were over 300 million RMB. In Hainan, the airport was closed and sea traffic to Guangdong was suspended during the passage of Vongfong.

In Hong Kong, the Standby Signal No. 1 was issued at 10.45 p.m. on 17 August when Vongfong was about 660 km to the south. Local winds were moderate to fresh east to northeasterlies at first. As Vongfong continued to intensify and approached the west coast of Guangdong in the next two days, local winds changed to southeasterlies with strong winds affecting offshore areas and high ground. The outer rainbands of Vongfong also brought scattered squally showers to Hong Kong. Vongfong was closest to Hong Kong on 19 August night when it was about 390 km to the west-southwest. The lowest instantaneous mean sea-level pressure of 1000.9 hPa was recorded at the Hong Kong Observatory at about 4 p.m. on 18 August. As Vongfong moved inland and weakened, the Standby Signal No. 1 was cancelled at 6.30 a.m. on 20 August.

During the passage of Vongfong, a river trade vessel ran aground at about 60 km southwest of Hong Kong. All the crew were rescued by the Government Flying Service. A person in Ngau Tau Kok was injured by a piece of falling awning and another man in Tuen Mun hurt his shoulder when hit by a broken tree branch. Some trees were also blown down in Hong Kong Island and the New Territories.

Information on wind, rainfall and tide during the passage of Vongfong is given in Tables 3.2.1-3.2.3. Figures 3.2.1-3.2.3 show the track of Vongfong, rainfall distribution in Hong Kong and cloud imagery respectively.

表 3.2.1 在黃蜂影響下，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 3.2.1 Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations during the issuing of the tropical cyclone warning signal for Vongfong

站 (參閱圖 1.1)	Station (see Fig. 1.1)	最高陣風 Maximum Gust		日期/月份 Date/Month	時間 Time	最高每小時平均風速 Maximum Hourly Wind		日期/月份 Date/Month	時間 Time		
		風向 Direction	風速(公里/時) Speed (km/h)			風向 Direction	風速(公里/時) Speed (km/h)				
		中環	Central			東 E	58			18/8	20:09
中環廣場	Central Plaza	-	-	90	18/8	20:06	-	-	56	19/8	19:00
赤鱗角 (機場)	Chek Lap Kok (Airport)	東南 SE	75	19/8	18:25	東南 SE	43	19/8	21:00		
		東南 SE	75	19/8	19:54						
長洲	Cheung Chau	東南偏東 ESE	94	18/8	16:21	東南 SE	59	20/8	03:00		
長沙灣	Cheung Sha Wan	東北 NE	62	18/8	19:20	東北 NE	23	18/8	19:00		
青洲	Green Island	東南偏東 ESE	92	18/8	13:19	東 E	47	18/8	12:00		
啓德	Kai Tak	東南 SE	72	18/8	22:39	東南偏東 ESE	41	19/8	19:00		
京士柏	King's Park	東南偏東 ESE	59	20/8	00:00	東 E	25	19/8	08:00		
流浮山	Lau Fau Shan	東北偏東 ENE	63	18/8	11:57	東北偏東 ENE	30	18/8	12:00		
北角	North Point	東北偏東 ENE	79	18/8	19:17	東北偏東 ENE	31	18/8	19:00		
						東北偏東 ENE	31	18/8	20:00		
平洲	Ping Chau	東 E	63	18/8	15:21	東 E	19	18/8	16:00		
西貢	Sai Kung	東北偏東 ENE	72	18/8	11:27	東北偏東 ENE	38	18/8	19:00		
沙田	Sha Tin	南 S	54	19/8	15:09	東北偏東 ENE	20	18/8	16:00		
						東南 SE	20	19/8	16:00		
天星碼頭 (九龍)	Star Ferry (Kowloon)	東南偏東 ESE	76	19/8	18:24	東 E	40	20/8	01:00		
打鼓嶺	Ta Kwu Ling	東南偏東 ESE	56	19/8	00:01	東 E	22	19/8	14:00		
大尾篤	Tai Mei Tuk	東北偏東 ENE	81	18/8	11:34	東北偏東 ENE	49	18/8	19:00		
大帽山	Tai Mo Shan	東南 SE	110	18/8	22:50	東南 SE	75	18/8	21:00		
塔門	Tap Mun	東南偏東 ESE	87	18/8	22:55	東南偏東 ESE	38	20/8	00:00		
大老山	Tate's Cairn	東北偏東 ENE	101	18/8	22:31	東 E	59	18/8	19:00		
鯽魚湖	Tsak Yue Wu	東北偏東 ENE	49	19/8	13:00	東 E	14	19/8	13:00		
將軍澳	Tseung Kwan O	東南偏東 ESE	63	19/8	18:17	東南偏東 ESE	22	19/8	19:00		
青衣	Tsing Yi	東南偏東 ESE	85	19/8	16:26	東南偏東 ESE	47	19/8	12:00		
						東南 SE	47	19/8	17:00		
屯門	Tuen Mun	東南偏南 SSE	68	19/8	21:12	東南 SE	30	19/8	18:00		
橫瀾島	Waglan Island	東 E	76	18/8	18:13	東 E	56	18/8	19:00		
		東 E	76	18/8	19:04						
黃竹坑	Wong Chuk Hang	東南 SE	76	18/8	19:20	東 E	30	19/8	08:00		

表 3.2.2 黃蜂影響香港期間，香港天文台總部及其他各站所錄得的日雨量（單位為毫米）
Table 3.2.2 Daily rainfall amounts in millimetres recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Vongfong

站(參閱圖 3.2.2) Station (see Fig. 3.2.2)	八月十七日 17 Aug	八月十八日 18 Aug	八月十九日 19 Aug	八月二十日 20 Aug	總雨量 Total
香港天文台 Hong Kong Observatory	1.0	51.6	26.8	14.6	94.0
H12 半山區 Mid Levels	0.0	74.5	24.0	26.0	124.5
H19 筲箕灣 Shau Kei Wan	0.0	50.5	25.5	16.0	92.0
H21 淺水灣 Repulse Bay	0.5	46.5	25.0	13.5	85.5
K04 佐敦谷 Jordan Valley	6.0	65.0	19.0	17.0	107.0
K06 蘇屋邨 So Uk Estate	3.0	58.5	39.0	11.0	111.5
N05 粉嶺 Fanling	0.0	48.5	26.5	24.0	99.0
N06 葵涌 Kwai Chung	0.5	69.0	46.0	17.5	133.0
N09 沙田 Sha Tin	1.5	57.0	23.5	22.5	104.5
N12 元朗 Yuen Long	0.0	50.0	38.0	25.0	113.0
N13 糧船灣 High Island	5.5	38.5	49.0	23.0	116.0
R21 踏石角 Tap Shek Kok	0.0	48.5	34.0	14.0	96.5
R31 大尾篤 Tai Mei Tuk	0.0	37.5	19.0	4.5	61.0

表 3.2.3 黃蜂影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.2.3 Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Vongfong

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
	鯽魚涌 Quarry Bay	2.60	20/8	05:59	0.43	20/8
石壁 Shek Pik	2.74	20/8	06:02	0.48	19/8	21:44
大埔滘 Tai Po Kau	2.53	20/8	05:46	0.44	20/8	05:52
尖鼻咀 Tsim Bei Tsui	2.78	20/8	06:53	0.34	20/8	06:53
橫瀾島 Waglan Island	2.68	20/8	05:08	0.41	20/8	05:08

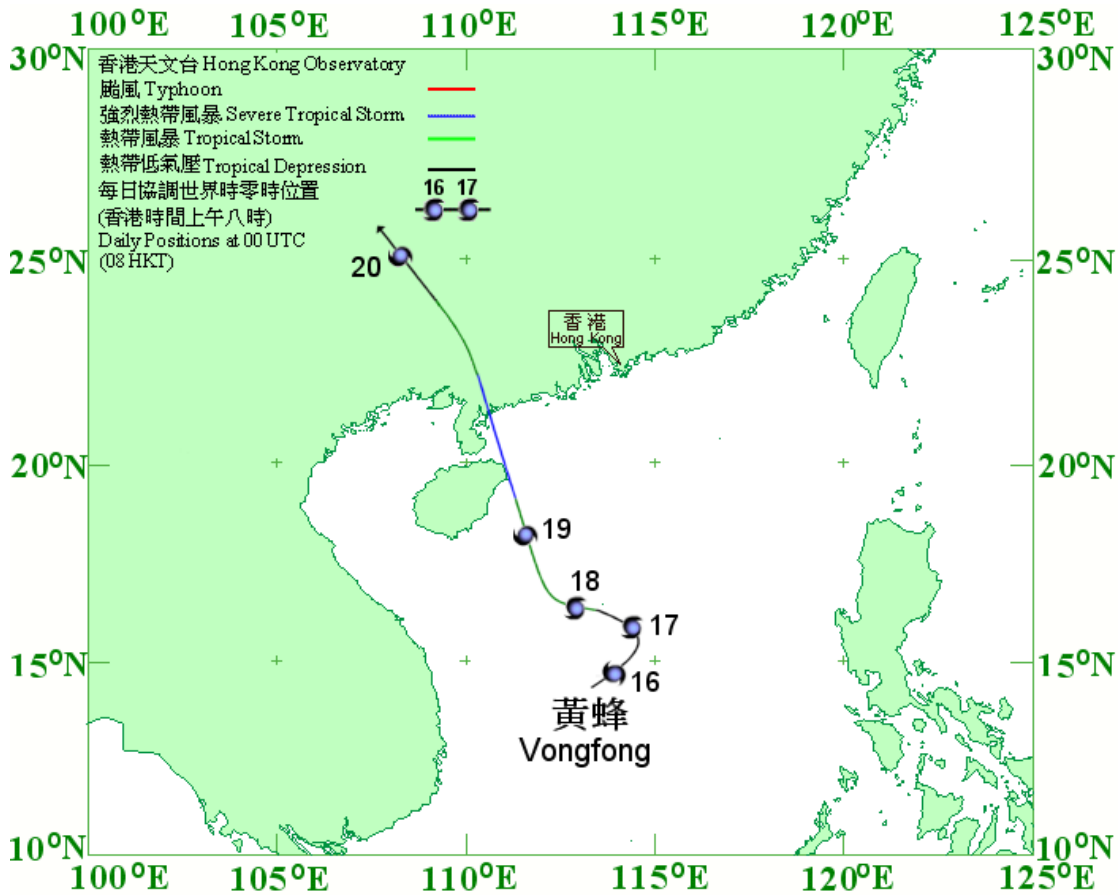


圖 3.2.1 二零零二年八月十五至二十日黃蜂 (0214) 的路徑圖。
 Figure 3.2.1 Track of Vongfong (0214) : 15 - 20 August 2002.

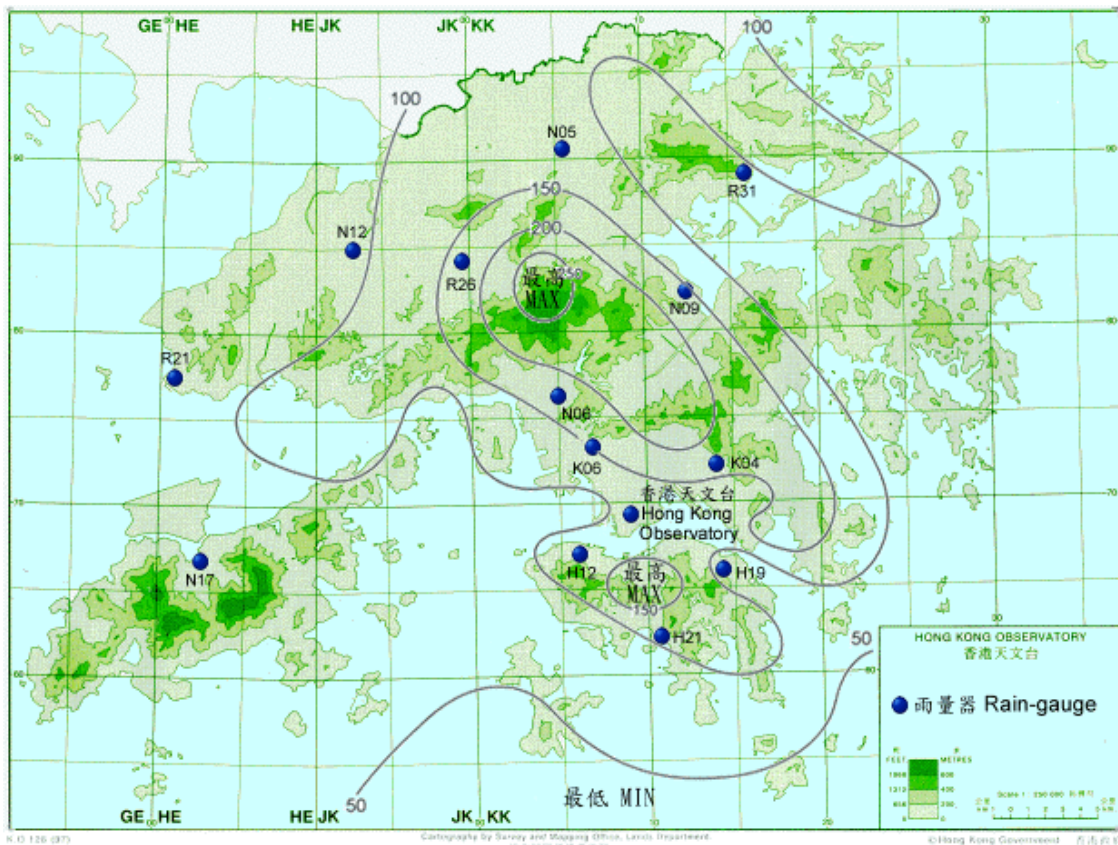


圖 3.2.2 二零零二年八月十七至二十日的雨量分佈 (等雨量線單位為毫米)。
 Figure 3.2.2 Rainfall distribution on 17-20 August 2002 (isohyets are in millimetres).

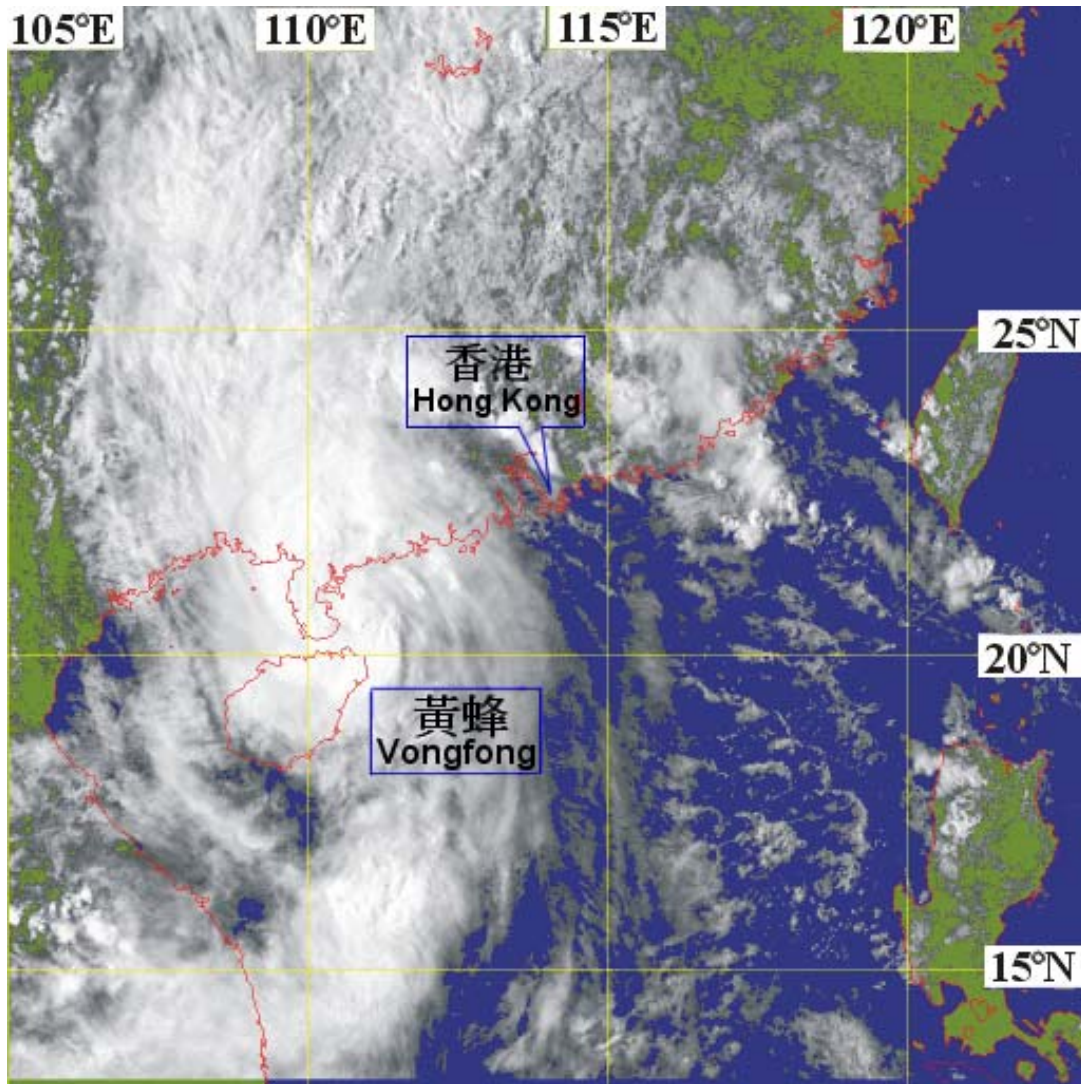


圖 3.2.3 二零零二年八月十九日約下午3時30分的可見光衛星圖片，顯示當時黃蜂位於雷州附近。〔此衛星雲圖接收自日本氣象廳的地球同步氣象衛星(GMS-5)〕

Figure 3.2.3 Visible imagery at around 3.30 p.m. on 19 August 2002 showing that Vongfong was near Leizhou. (The cloud imagery was originally captured by the Geostationary Meteorological Satellite (GMS-5) of Japan Meteorological Agency)