

3.2 兩個熱帶低氣壓：二零二一年七月五日至八日

七月六日天文台就分別位於台灣南部附近及南海中部的兩個熱帶低氣壓發出一號戒備信號，這情況較為罕見，對上一次天文台同時就兩個熱帶氣旋發出熱帶氣旋警告信號是一九七九年九月的強烈熱帶風暴麥克及熱帶風暴蘭茜。

七月五日凌晨，一個低壓區在馬尼拉之東北偏東約740公里的西北太平洋上增強為熱帶低氣壓，隨後向西北方向移動，橫過呂宋海峽。該熱帶低氣壓在當晚達到其最高強度，中心附近最高持續風速估計為每小時55公里。該熱帶低氣壓在七月六日早上掠過台灣西南沿岸海域並迅速減弱，中午過後在台灣海峽附近消散。

而另一個低壓區則在七月五日晚上於西沙之東南偏南約230公里的南海中部上增強為熱帶低氣壓。該熱帶低氣壓在七月六日大致採取西北至西北偏北路徑移向海南島，當晚達到其最高強度，中心附近最高持續風速估計為每小時55公里。七月七日該熱帶低氣壓橫過海南島西南部後進入北部灣，翌日登陸越南北部並減弱為低壓區。

香港天文台在七月六日上午4時15分發出一號戒備信號，當時第一個位於台灣南部附近的熱帶低氣壓集結在香港以東約660公里，而第二個位於南海中部的熱帶低氣壓則在香港之西南偏南約820公里。當日早上本港普遍吹和緩偏東風。第一個熱帶低氣壓在中午前最接近本港，其中心位於香港以東約610公里。中午過後該熱帶低氣壓在台灣海峽附近消散。但由於位於南海中部的第二個熱帶低氣壓繼續移近本港，一號戒備信號仍然維持。七月六日下午及翌日本港離岸及高地間中吹強風。第二個熱帶低氣壓在七月七日上午二時左右最接近本港，在香港之西南偏南約570公里掠過。隨著該熱帶低氣壓登陸海南島及遠離香港，對香港的威脅減少，天文台在七月七日下午2時10分取消所有熱帶氣旋警告信號。

在這兩個熱帶低氣壓的影響下，尖鼻咀錄得最高潮位(海圖基準面以上) 2.49米，而大廟灣及大埔滘均錄得最大風暴潮(天文潮高度以上)0.22米。天文台總部於七月六日上午4時15分錄得最低瞬時海平面氣壓1004.7百帕斯卡。

受這兩個熱帶低氣壓相關的外圍雨帶影響，在七月六日及七月七日初時本港間中有狂風驟雨及雷暴，多處地區錄得超過20毫米雨量。隨著覆蓋中國東南部的副熱帶高壓脊向西伸展，七月七日本港日間驟雨減少，天氣轉為酷熱及短暫時間有陽光。

這兩個熱帶低氣壓影響香港期間並沒有造成嚴重破壞。

3.2 Two Tropical Depressions: 5 to 8 July 2021

On 6 July, the Standby Signal No.1 was issued for two tropical depressions which were respectively located near the southern part of Taiwan and over the central part of the South China Sea. This is a relatively rare event and the last time with a tropical cyclone warning signal issued for two tropical cyclones at the same time was due to severe tropical storm Mac and tropical storm Nancy in September 1979.

The area of low pressure over the western North Pacific around 740 km east-northeast of Manila intensified into a tropical depression in the small hours on 5 July. The tropical depression then moved northwestwards across the Luzon Strait. It reached its peak intensity at night with an estimated sustained wind of 55 km/h near its centre. The tropical depression skirted past the southwestern coastal waters of Taiwan and weakened rapidly on the morning of 6 July. It dissipated near the Taiwan Strait shortly after noon.

Another area of low pressure over the central part of the South China Sea around 230 km south-southeast of Xisha intensified into a tropical depression on the night of 5 July. It tracked generally northwest to north-northwestwards towards Hainan Island on 6 July. The tropical depression reached its peak intensity on the night of 6 July with an estimated sustained wind of 55 km/h near its centre. After moving across the southwestern part of Hainan Island, the tropical depression entered Beibu Wan on 7 July. It made landfall over the northern part of Vietnam on 8 July and then degenerated into an area of low pressure.

In Hong Kong, the Standby Signal No.1 was issued at 4:15 a.m. on 6 July when the first tropical depression near the southern part of Taiwan was about 660 km east of Hong Kong and the second tropical depression over the central part of the South China Sea was about 820 km south-southwest of Hong Kong. Local winds were generally moderate easterlies in the morning. The first tropical depression was closest to Hong Kong before noon with its centre about 610 km east of Hong Kong. It dissipated near Taiwan Strait shortly after noon. Meanwhile, as the second tropical depression over the central part of the South China Sea continued to edge closer to Hong Kong, the Standby Signal No.1 remained in force. Locally, there were occasional strong winds offshore and on high ground on the afternoon of 6 July and the next day. The second tropical depression came closest to Hong Kong around 2 a.m. on 7 July as it skirted past about 570 km south-southwest of the territory. With the second tropical depression making landfall over Hainan Island and moving away from Hong Kong, its threat to Hong Kong diminished and all tropical cyclone warning signals were cancelled at 2:10 p.m. on 7 July.

Under the influence of the two tropical depressions, a maximum sea level (above chart datum) of 2.49 m was recorded at Tsim Bei Tsui. A maximum storm surge of 0.22 m (above astronomical tide) was recorded at Tai Miu Wan and Tai Po Kau. At the Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1004.7 hPa was recorded at 4:15 a.m. on 6 July.

Affected by the outer rainbands of these two tropical depressions, there were occasional squally showers and thunderstorms in Hong Kong on 6 July and the early part of 7 July. More than 20 millimetres of rainfall were recorded in many places of Hong Kong. With the subtropical ridge over southeastern China extending westwards, showers in Hong Kong abated gradually during the day on 7 July and local weather became very hot with sunny intervals.

The two tropical depressions did not cause significant damage in Hong Kong.

表 3.2.1 在兩個熱帶低氣壓影響下，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 when the tropical cyclone warning signals for the two tropical depressions 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		
中環碼頭	Central Pier	東	E	56	6/7	15:38	東	E	22	6/7	22:00
		東南偏東	ESE	22	7/7	11:00	東南偏東	ESE	40	7/7	09:00
長洲	Cheung Chau	東南	SE	69	6/7	23:09	東南偏東	ESE	36	6/7	15:00
長洲泳灘	Cheung Chau Beach	東	E	61	6/7	14:24	東	E	28	6/7	15:00
		東南偏東	ESE	61	6/7	23:11	東南偏東	ESE	24	7/7	11:00
香港國際機場	Hong Kong International Airport	東南偏東	ESE	54	6/7	23:35	東南偏東	ESE	17	7/7	11:00
啟德	Kai Tak	東	E	46	6/7	23:46	東	E	17	7/7	11:00
京士柏	King's Park	東南偏東	ESE	50	6/7	14:12	東南偏東	ESE	26	7/7	10:00
南丫島	Lamma Island	東南偏南	SSE	51	6/7	16:24	東南	SE	30	7/7	13:00
流浮山	Lau Fau Shan	東南偏東	ESE	90	6/7	23:26	東	E	53	7/7	03:00
昂坪	Ngong Ping	東	E	50	6/7	15:33	東	E	22	7/7	03:00
北角	North Point	東南	SE	54	6/7	14:25	東	E	30	6/7	22:00
坪洲	Peng Chau	東南	SE	27	7/7	14:08	東	E	8	6/7	22:00
平洲	Ping Chau	東南偏南	SSE	50	6/7	15:43	東南偏南	SSE	30	7/7	11:00
西貢	Sai Kung	東南	SE	52	6/7	14:52	東南	SE	34	7/7	12:00
沙洲	Sha Chau	東南偏南	SSE	52	6/7	16:29	東南	SE	15	7/7	11:00
		東南偏東	ESE	54	7/7	08:28	東	E	18	7/7	00:00
沙螺灣	Sha Lo Wan	東南	SE	39	7/7	09:55	東南	SE	15	7/7	12:00
		東南	SE	39	7/7	09:55	東南	SE	15	7/7	12:00
沙田	Sha Tin	東	E	52	6/7	23:45	東南偏東	ESE	27	7/7	11:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	43	7/7	03:37	東南偏南	SSE	15	7/7	13:00
打鼓嶺	Ta Kwu Ling	東	E	68	7/7	03:20	東	E	30	7/7	02:00
大美督	Tai Mei Tuk	東南偏東	ESE	69	7/7	09:17	東	E	49	6/7	23:00
大帽山	Tai Mo Shan	東南偏南	SSE	50	6/7	15:56	東南偏東	ESE	25	7/7	12:00
大埔滘	Tai Po Kau	-	-	62	7/7	03:56	-	-	38	7/7	04:00
塔門東	Tap Mun East	東南	SE	65	6/7	15:37	東南偏東	ESE	37	7/7	00:00
大老山	Tate's Cairn	東	E	5	7/7	09:00	東	E	5	7/7	09:00
		東南偏東	ESE	36	6/7	15:33	東南偏東	ESE	5	7/7	11:00
將軍澳	Tseung Kwan O	東南	SE	49	6/7	14:40	東南	SE	24	6/7	15:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南	SE	48	6/7	14:41	東南偏南	SSE	24	6/7	15:00
屯門政府合署	Tuen Mun Government Offices	東南	SE	48	6/7	14:41	東南偏南	SSE	24	6/7	15:00
橫瀾島	Waglan Island	東南偏東	ESE	59	6/7	23:18	東南偏東	ESE	37	7/7	08:00
		東南偏東	ESE	37	7/7	09:00	東南偏東	ESE	37	7/7	09:00
		東南偏南	SSE	14	7/7	13:00	東南偏南	SSE	14	7/7	13:00
濕地公園	Wetland Park	南	S	33	7/7	12:31	南	S	14	7/7	14:00
		南	S	33	7/7	12:31	南	S	14	7/7	14:00
黃竹坑	Wong Chuk Hang	北	N	49	6/7	14:04	北	N	17	7/7	13:00

黃麻角(赤柱)、青洲、石崗 - 沒有資料
塔門東 - 沒有風向資料

Bluff Head (Stanley), Green Island, Shek Kong - data not available
Tap Mun East - wind direction not available

表 3.2.2 兩個熱帶低氣壓影響香港期間，香港天文台總部及其他各站所錄得的日雨量

Table 3.2.2 Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of the two tropical depressions

站 (參閱圖 3.2.2) Station (See Fig. 3.2.2)			七月六日 6 Jul	七月七日 7 Jul	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			18.4	11.7	30.1
香港國際機場 Hong Kong International Airport (HKA)			2.8	1.5	4.3
長洲 Cheung Chau (CCH)			10.0	0.0	10.0
H23	香港仔	Aberdeen	17.5	5.0	22.5
N05	粉嶺	Fanling	3.5	20.0	23.5
N13	糧船灣	High Island	7.0	12.5	19.5
K04	佐敦谷	Jordan Valley	7.5	26.0	33.5
N06	葵涌	Kwai Chung	2.0	22.0	24.0
H12	半山區	Mid Levels	13.5	5.0	18.5
N09	沙田	Sha Tin	5.5	10.0	15.5
H19	筲箕灣	Shau Kei Wan	17.0	14.5	31.5
SEK	石崗	Shek Kong	0.5	7.0	7.5
K06	蘇屋邨	So Uk Estate	9.5	20.0	29.5
R31	大美督	Tai Mei Tuk	10.0	15.0	25.0
R21	踏石角	Tap Shek Kok	0.0	3.0	3.0
N17	東涌	Tung Chung	0.0	0.0	0.0
TMR	屯門水庫	Tuen Mun Reservoir	0.3	6.8	7.1

表 3.2.3 兩個熱帶低氣壓影響香港期間，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 the two tropical depressions

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	2.11	7/7	07:10	0.15	6/7	23:27
石壁	Shek Pik	2.26	7/7	07:04	0.21	6/7	23:25
大廟灣	Tai Miu Wan	2.12	7/7	07:26	0.22	6/7	22:29
大埔滘	Tai Po Kau	2.09	7/7	08:01	0.22	6/7	22:55
尖鼻咀	Tsim Bei Tsui	2.49	7/7	07:59	0.20	7/7	01:05

橫瀾島 - 沒有資料 Waglan Island - data not available

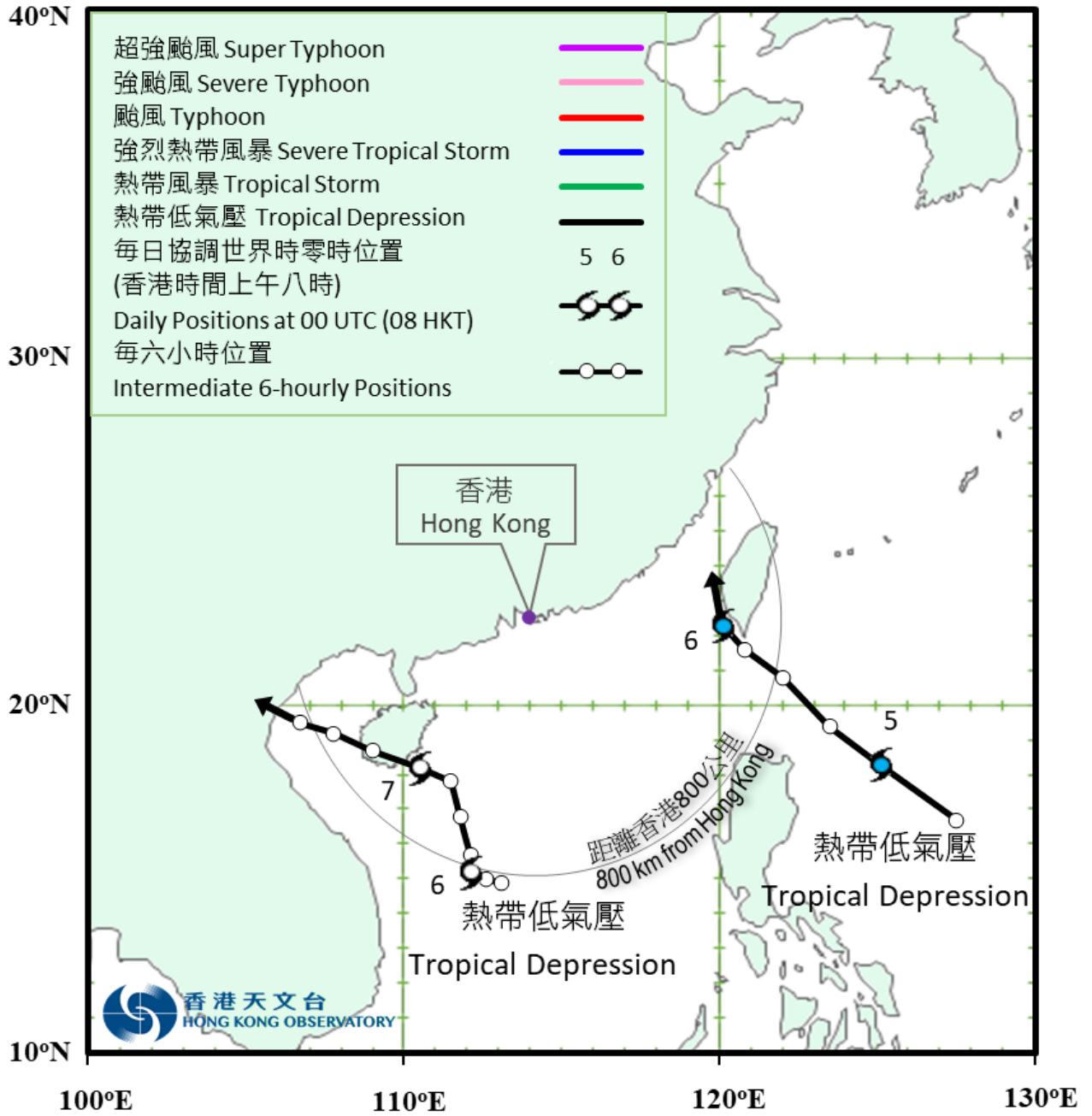


圖 3.2.1 二零二一年七月五日至八日兩個熱帶低氣壓的路徑圖。
Figure 3.2.1 Tracks of the two tropical depressions: 5 – 8 July 2021.

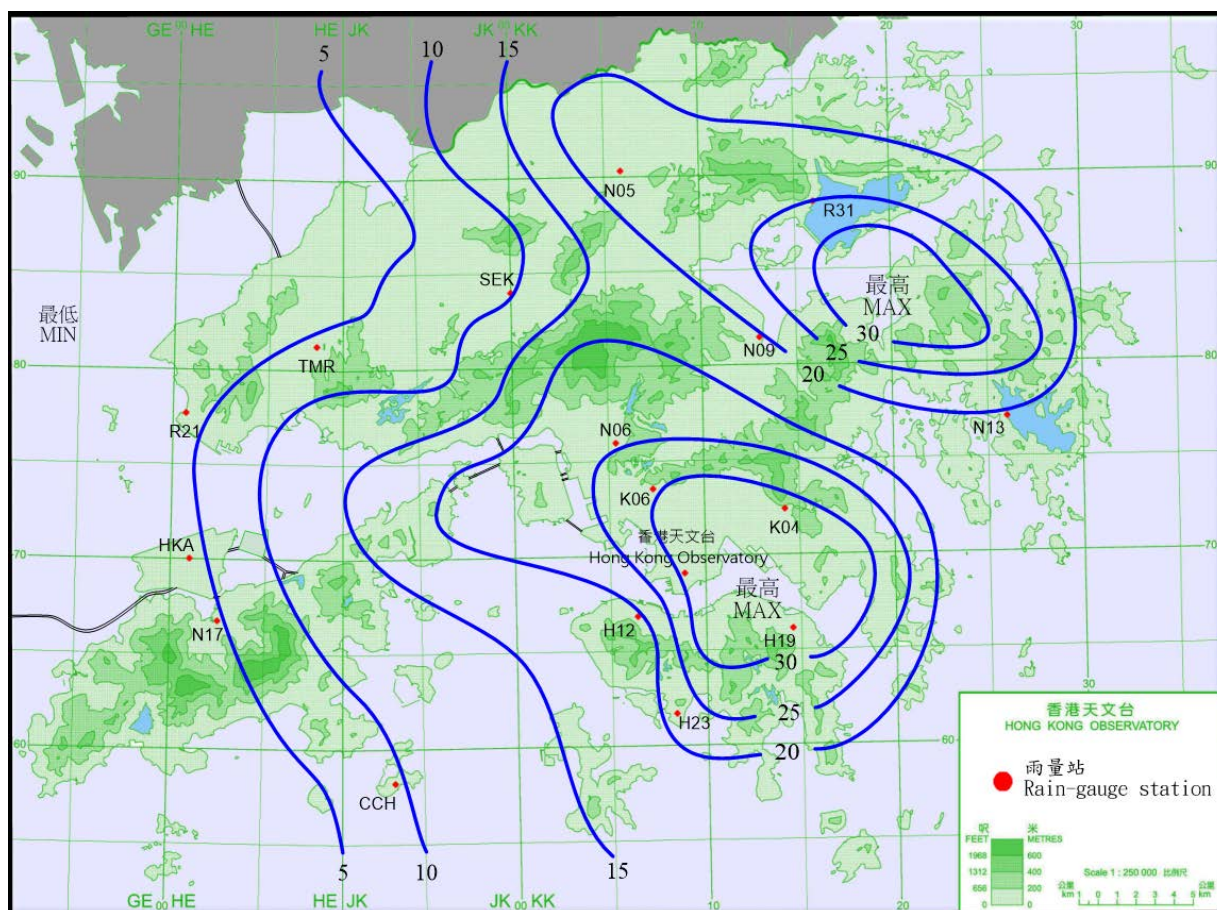


圖 3.2.2 二零二一年七月六日至七日的雨量分佈(等雨量線單位為毫米)。

Figure 3.2.2 Rainfall distribution on 6–7 July 2021 (isohyets in millimetres).

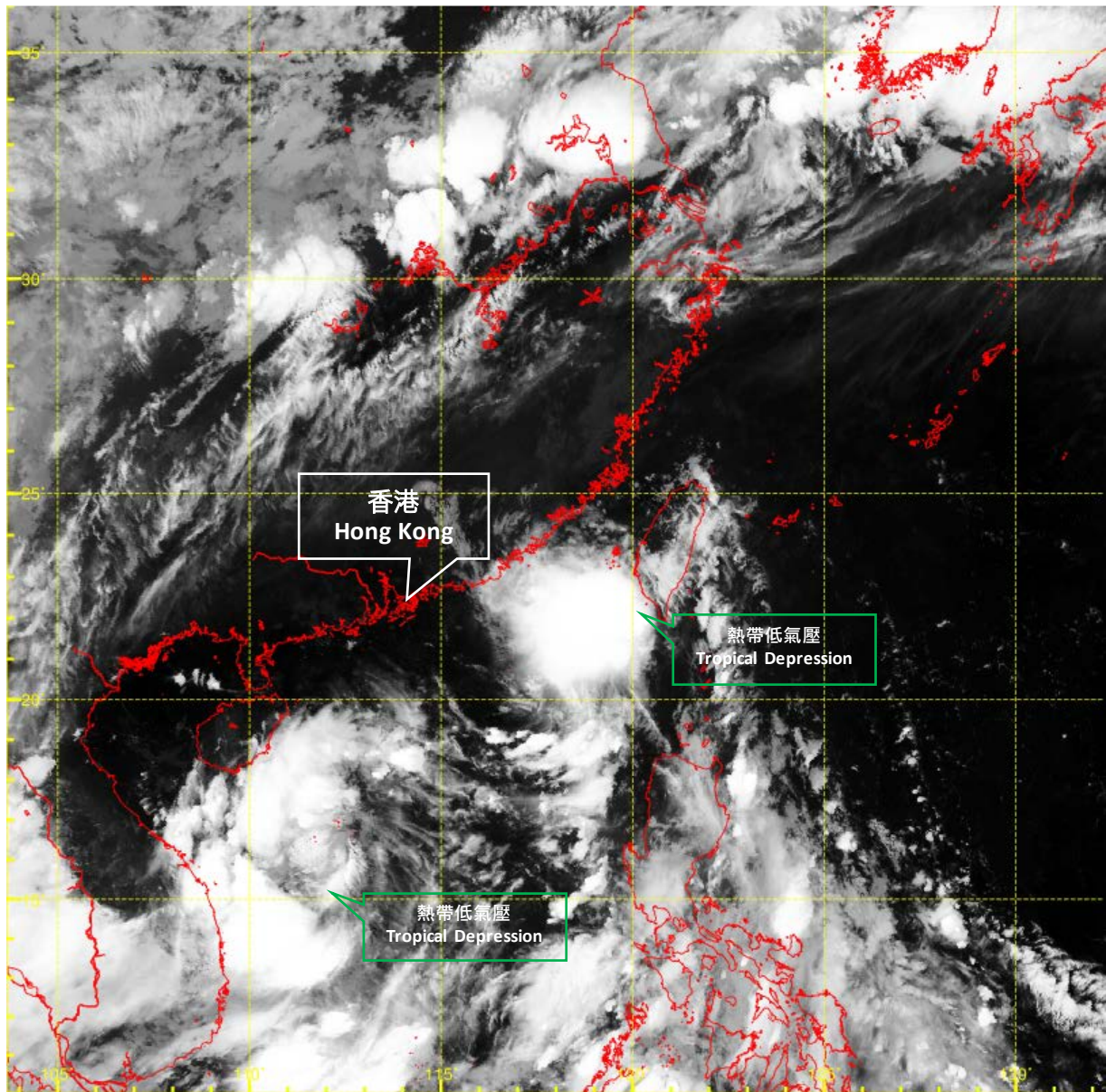


圖 3.2.3a 二零二一年七月六日上午5時左右的紅外線衛星圖片，當時第一個熱帶低氣壓集結在台灣南部附近，而第二個熱帶低氣壓則位於南海中部。

Figure 3.2.3a Infra-red satellite imagery around 5 a.m. on 6 July 2021, when the first tropical depression was near the southern part of Taiwan and the second tropical depression was over the central part of the South China Sea.

[此衛星圖像接收自日本氣象廳的向日葵8號衛星。]

[The satellite imagery was originally captured by Himawari-8 Satellite (H-8) of Japan Meteorological Agency (JMA).]

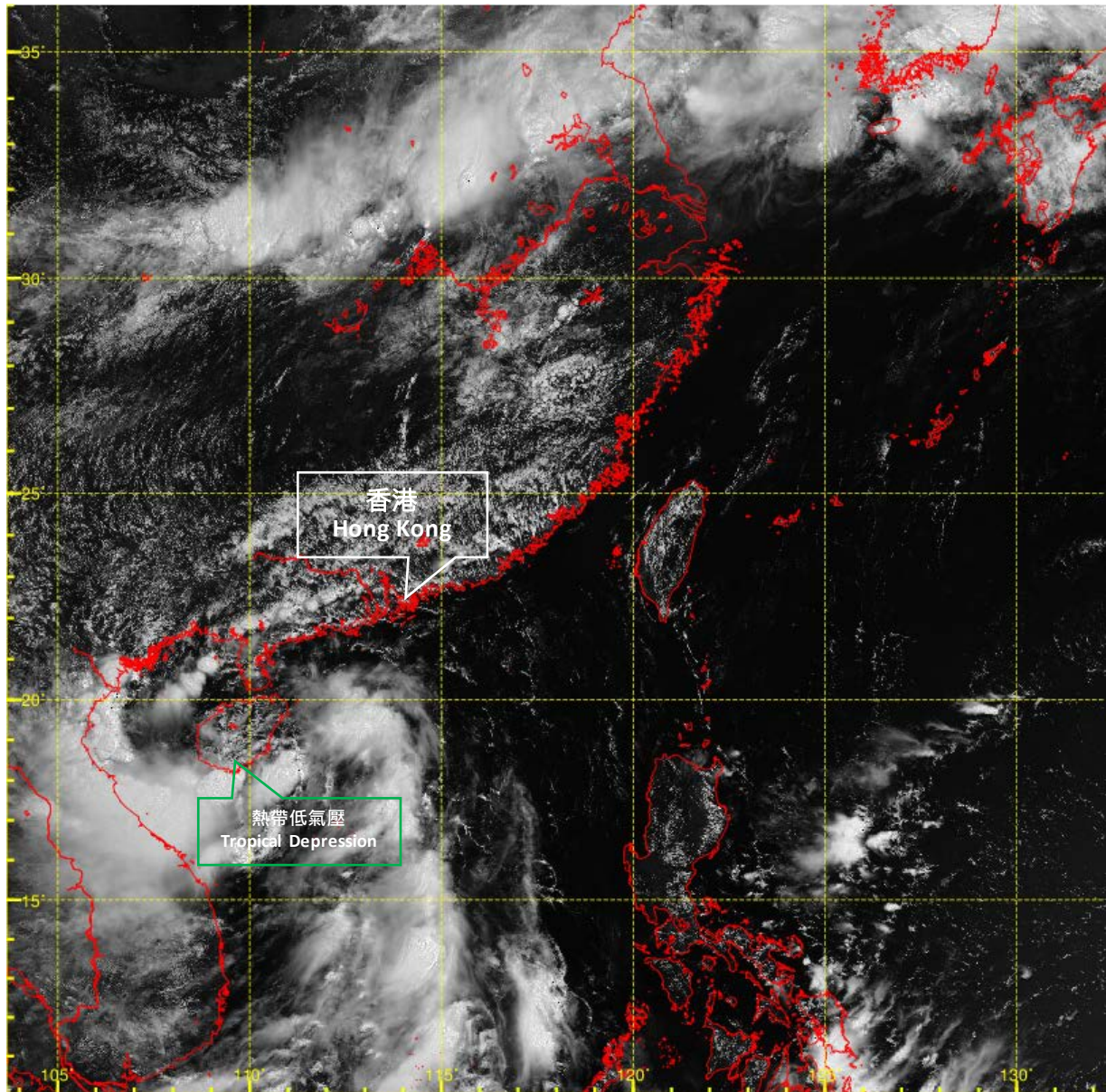


圖 3.2.3b 二零二一年七月七日上午11時左右的可見光衛星圖片，當時第二個熱帶低氣壓已登陸海南島，而副熱帶高壓脊為中國東南部及南海東北部帶來普遍晴朗的天氣。

Figure 3.2.3b Visible satellite imagery around 11 a.m. on 7 July 2021. The second tropical depression had already made landfall over Hainan Island at that time. The subtropical ridge was bringing generally fine weather to southeastern China and the northeastern part of the South China Sea.

[此衛星圖像接收自日本氣象廳的向日葵8號衛星。]

[The satellite imagery was originally captured by Himawari-8 Satellite (H-8) of Japan Meteorological Agency (JMA).]

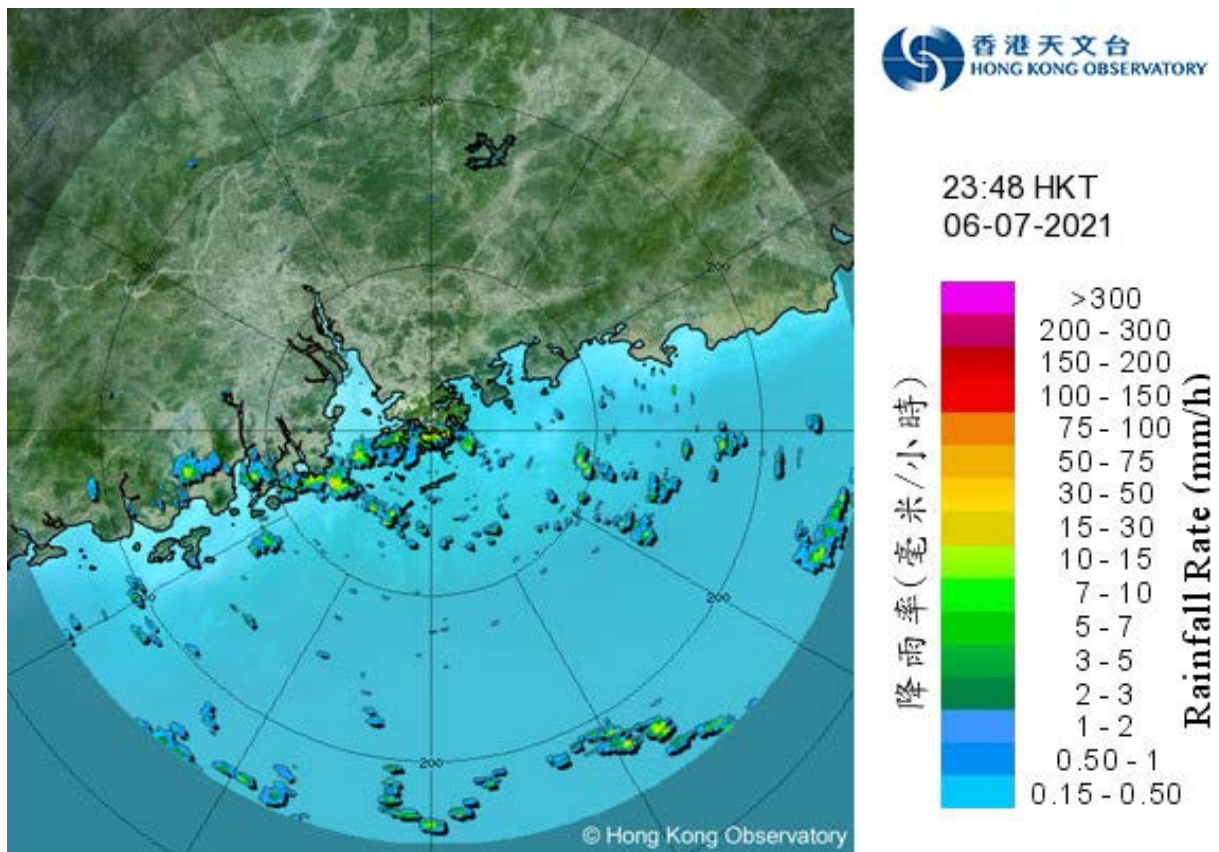


圖 3.2.4 二零二一年七月六日晚上11時48分的雷達回波圖像，當時與兩個熱帶低氣壓相關的外圍雨帶正影響香港。

Figure 3.2.4 Image of radar echoes at 11:48 p.m. on 6 July 2021. The outer rainbands associated with the two tropical depressions were affecting Hong Kong at that time.