

3.4 熱帶風暴百里嘉 (1823)：二零一八年九月十日至十三日

百里嘉是二零一八年第四個影響香港的熱帶氣旋。

熱帶低氣壓百里嘉於九月十日早上在高雄之東南約200公里的海域上形成，大致向偏西方向移動，橫過南海北部。百里嘉於九月十一日增強為熱帶風暴，翌日晚上達到最高強度，中心附近最高持續風速估計為每小時85公里。九月十三日百里嘉橫過雷州半島及減弱，傍晚在廣西內陸消散。

根據報章報導，受百里嘉影響，湛江及茂名共有4萬人需要撤離。

香港天文台在九月十一日上午10時40分發出一號戒備信號，當時百里嘉集結在香港之東南偏東約460公里。九月十一日本港普遍吹輕微至和緩偏北風。隨著百里嘉靠近本港，天文台在九月十二日下午12時20分發出三號強風信號，當時百里嘉位於香港之東南偏南約170公里。當日下午本港普遍吹清勁至強風程度東至東北風。百里嘉於下午3時左右最接近香港，在本港以南約150公里掠過。隨著百里嘉繼續向西移動並遠離香港，本港風勢逐漸緩和，天文台在九月十三日上午4時10分以一號戒備信號取代三號強風信號，並於當日上午7時40分取消所有熱帶氣旋警告信號。

百里嘉影響香港期間，尖鼻咀錄得最高潮位(海圖基準面以上) 2.88米，大埔滘則錄得最大風暴潮(天文潮高度以上) 0.38米。天文台總部於九月十二日下午4時49分錄得最低瞬時海平面氣壓1006.0百帕斯卡，當時百里嘉位於本港以南約150公里。

百里嘉吹襲香港期間並沒有造成嚴重破壞。受百里嘉外圍下沉氣流影響，九月十一日本港天氣普遍晴朗。百里嘉於九月十二日在本港南面掠過，當日本港有幾陣驟雨。隨著百里嘉遠離香港，九月十三日除初時有幾陣驟雨外，本港部分時間有陽光。

表3.4.1 - 3.4.4 分別是百里嘉影響香港期間各站錄得的最高風速、持續風力達到強風程度的時段、香港的日雨量及最高潮位資料。圖3.4.1為百里嘉的路徑圖。圖3.4.2 - 3.4.3 分別為百里嘉的衛星及雷達圖像。

3.4 Tropical Storm Barijat (1823): 10 – 13 September 2018

Barijat was the fourth tropical cyclone affecting Hong Kong in 2018.

Barijat formed as a tropical depression over the sea areas about 200 km southeast of Gaoxiong on the morning of 10 September and moved generally westwards across the northern part of the South China Sea. It intensified into a tropical storm on 11 September and reached its peak intensity with an estimated maximum sustained wind of 85 km/h near its centre the next night. Barijat moved across Leizhou Peninsula and weakened on 13 September. It dissipated over inland Guangxi in that evening.

According to press reports, affected by Barijat, 40 000 people were evacuated in Maoming and Zhanjiang .

In Hong Kong, the No. 1 Standby Signal was issued at 10:40 a.m. on 11 September when Barijat was about 460 km east-southeast of Hong Kong. Local winds were light to moderate northerlies on 11 September. As Barijat edged closer towards Hong Kong, the No. 3 Strong Wind Signal was issued at 12:20 p.m. on 12 September when it was about 170 km south-southeast of Hong Kong. Local winds were generally fresh to strong east to northeasterlies in that afternoon. Barijat came closest to the territory at around 3 p.m. on that day as it skirted past about 150 km south of Hong Kong. As Barijat continued to track westwards and depart from Hong Kong, the No. 3 Strong Wind Signal was replaced by the No. 1 Standby Signal at 4:10 a.m. on 13 September, and all tropical cyclone warning signals were cancelled at 7:40 a.m. on that day.

During the passage of Barijat, a maximum sea level (above chart datum) of 2.88 m was recorded at Tsim Bei Tsui and a maximum storm surge (above astronomical tide) of 0.38 m was recorded at Tai Po Kau. The lowest instantaneous mean sea-level pressure of 1006.0 hPa was recorded at the Observatory headquarters at 4:49 p.m. on 12 September when Barijat was about 150 km south of Hong Kong.

Barijat did not cause any significant damage in Hong Kong. Under the influence of the outer subsiding air of Barijat, the weather of Hong Kong was generally fine on 11 September. As Barijat skirted past to the south of Hong Kong, there were a few showers on 12 September. With Barijat moving away from Hong Kong, apart from a few showers at first, there were sunny periods on 13 September.

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 Barijat is given in Tables 3.4.1 - 3.4.4 respectively. Figure 3.4.1 shows the track of Barijat. Figures 3.4.2 - 3.4.3 show respectively a satellite imagery and radar imageries of Barijat.

表 3.4.1 在百里嘉影響下，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 Barijat 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)	東北偏東	ENE	70	12/9	14:32	東	E	31	12/9	19:00
中環碼頭	Central Pier	東	E	62	12/9	17:44	東	E	38	12/9	16:00
							東	E	38	12/9	17:00
長洲	Cheung Chau	東南偏東	ESE	67	12/9	19:30	東	E	40	12/9	20:00
							東	E	40	12/9	21:00
長洲泳灘	Cheung Chau Beach	東北偏東	ENE	67	12/9	14:54	東北偏東	ENE	51	12/9	15:00
青洲	Green Island	東北偏東	ENE	77	12/9	14:45	東北偏東	ENE	52	12/9	17:00
香港國際機場	Hong Kong International Airport	東北偏東	ENE	51	12/9	16:21	東北偏東	ENE	31	12/9	17:00
啟德	Kai Tak	東南偏東	ESE	54	12/9	20:48	東	E	25	12/9	22:00
京士柏	King's Park	東	E	58	12/9	18:25	東	E	22	12/9	18:00
流浮山	Lau Fau Shan	東北偏東	ENE	51	12/9	14:34	東北偏東	ENE	30	12/9	20:00
北角	North Point	東	E	58	12/9	17:19	東北偏東	ENE	36	12/9	15:00
坪洲	Peng Chau	東北偏東	ENE	62	12/9	14:52	東	E	41	12/9	17:00
平洲	Ping Chau	東南	SE	31	12/9	12:41	東南	SE	7	12/9	13:00
西貢	Sai Kung	東北偏東	ENE	56	12/9	13:45	東北偏東	ENE	34	12/9	17:00
沙洲	Sha Chau	東北	NE	49	12/9	12:24	東	E	25	12/9	15:00
							東	E	25	12/9	19:00
沙螺灣	Sha Lo Wan	東	E	47	12/9	19:52	東	E	23	12/9	17:00
沙田	Sha Tin	東北	NE	49	12/9	13:30	東北	NE	16	12/9	14:00
石崗	Shek Kong	東北	NE	49	12/9	14:25	東	E	22	12/9	22:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	54	12/9	19:30	東	E	30	12/9	20:00
打鼓嶺	Ta Kwu Ling	東北	NE	38	12/9	16:55	東北偏東	ENE	14	12/9	14:00
大美督	Tai Mei Tuk	東北偏東	ENE	63	12/9	14:05	東北偏東	ENE	47	12/9	14:00
大帽山	Tai Mo Shan	東南偏東	ESE	79	12/9	21:37	東南偏東	ESE	58	12/9	22:00
大埔滘	Tai Po Kau	東	E	45	12/9	18:42	東	E	31	12/9	19:00
							東	E	31	12/9	22:00
塔門東	Tap Mun East	東北偏東	ENE	58	12/9	13:35	東北偏東	ENE	43	12/9	17:00
大老山	Tate's Cairn	東北偏東	ENE	77	12/9	13:56	東	E	52	12/9	23:00
將軍澳	Tseung Kwan O	東	E	51	12/9	15:34	東北偏北	NNE	14	12/9	10:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南	SE	40	12/9	15:37	東南偏東	ESE	14	12/9	17:00
屯門政府合署	Tuen Mun Government Offices	東南偏東	ESE	43	12/9	14:13	東北偏北	NNE	14	12/9	06:00
橫瀾島	Waglan Island	東北偏東	ENE	77	12/9	14:24	東北偏東	ENE	63	12/9	15:00
濕地公園	Wetland Park	東	E	36	12/9	13:39	東	E	14	12/9	15:00
黃竹坑	Wong Chuk Hang	東北	NE	58	12/9	18:01	東北偏東	ENE	22	12/9	18:00

昂坪- 沒有資料 Ngong Ping - data not available

表 3.4.2 在百里嘉影響下，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 3.4.2 Periods during which sustained strong and gale force winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Barijat were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*		最後達到強風*	
		時間		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	12/9	14:48	12/9	21:54

香港國際機場、啟德、沙田、流浮山、西貢、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 the Hong Kong International Airport, Kai Tak, Sha Tin, Lau Fau Shan, Sai Kung, 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： 本表列出持續風力達到強風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note: The table gives the start and end time of sustained strong force winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.4.3 百里嘉掠過期間，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 Barijat

站		九月十一日	九月十二日	九月十三日	總雨量(毫米)
Station		11 Sep	12 Sep	13 Sep	Total rainfall (mm)
香港天文台 Hong Kong Observatory		0.0	微量 Trace	2.5	2.5
香港國際機場 Hong Kong International Airport (HKA)		0.0	2.1	0.3	2.4
長洲 Cheung Chau (CCH)		0.0	0.0	0.5	0.5
H23	香港仔 Aberdeen	0.0	3.5	1.5	5.0
N05	粉嶺 Fanling	0.0	0.0	0.5	0.5
N13	糧船灣 High Island	0.0	0.5	1.5	2.0
K04	佐敦谷 Jordan Valley	0.0	0.5	1.5	2.0
N06	葵涌 Kwai Chung	0.0	1.5	1.0	2.5
H12	半山區 Mid Levels	0.0	1.0	1.5	2.5
N09	沙田 Sha Tin	0.0	0.5	5.0	5.5
H19	筲箕灣 Shau Kei Wan	0.0	1.0	4.5	5.5
SEK	石崗 Shek Kong	0.5	1.0	3.0	4.5
K06	蘇屋邨 So Uk Estate	0.0	1.5	1.0	2.5
R31	大美督 Tai Mei Tuk	0.0	0.0	0.0	0.0
R21	踏石角 Tap Shek Kok	0.0	[0.0]	0.0	[0.0]
TMR	屯門水庫 Tuen Mun Reservoir	0.0	0.0	0.0	0.0

東涌 - 沒有資料 Tung Chung - data not available

註：[] 基於不完整的每小時雨量數據。Note：[] based on incomplete hourly data.

表 3.4.4 百里嘉掠過期間，香港各潮汐站所錄得的最高潮位及最大風暴潮

Table 3.4.4 Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Barijat

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
鰂魚涌	Quarry Bay	2.51	12/9	11:31	0.30	12/9	13:10
石壁	Shek Pik	2.49	12/9	10:59	0.25	12/9	19:57
大廟灣	Tai Miu Wan	2.37	12/9	11:48	0.25	12/9	19:24
大埔滘	Tai Po Kau	2.56	11/9	11:07	0.38	12/9	15:20
尖鼻咀	Tsim Bei Tsui	2.88	11/9	11:22	0.27	13/9	00:03
橫瀾島	Waglan Island	2.50	12/9	11:49	0.19	12/9	13:46

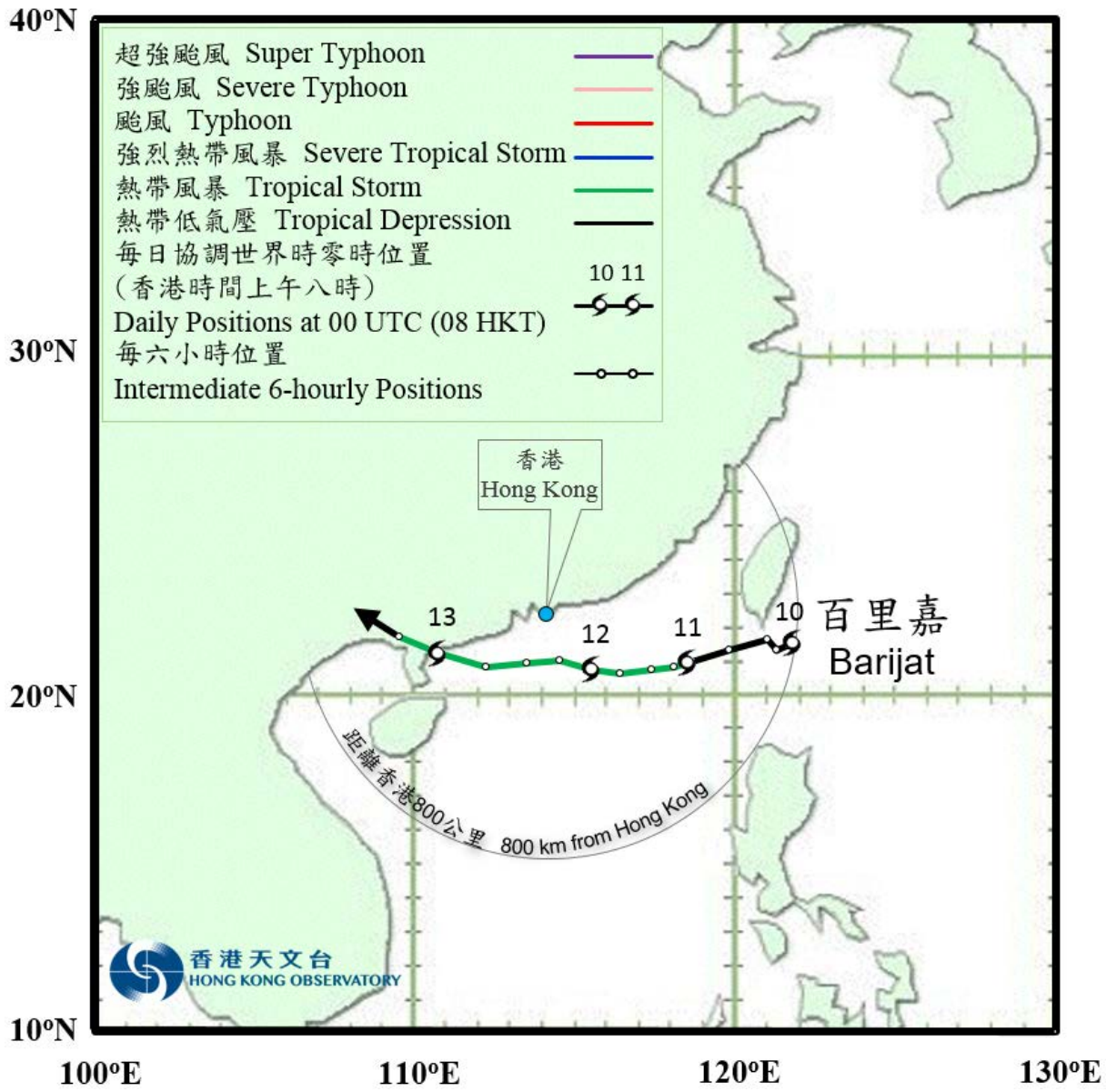


圖 3.4.1a 二零一八年九月十日至十三日百里嘉的路徑圖。

Figure 3.4.1a Track of Barijat on 10 - 13 September 2018.



圖 3.4.1b 百里嘉接近香港時的路徑圖。
Figure 3.4.1b Track of Barijat near Hong Kong.

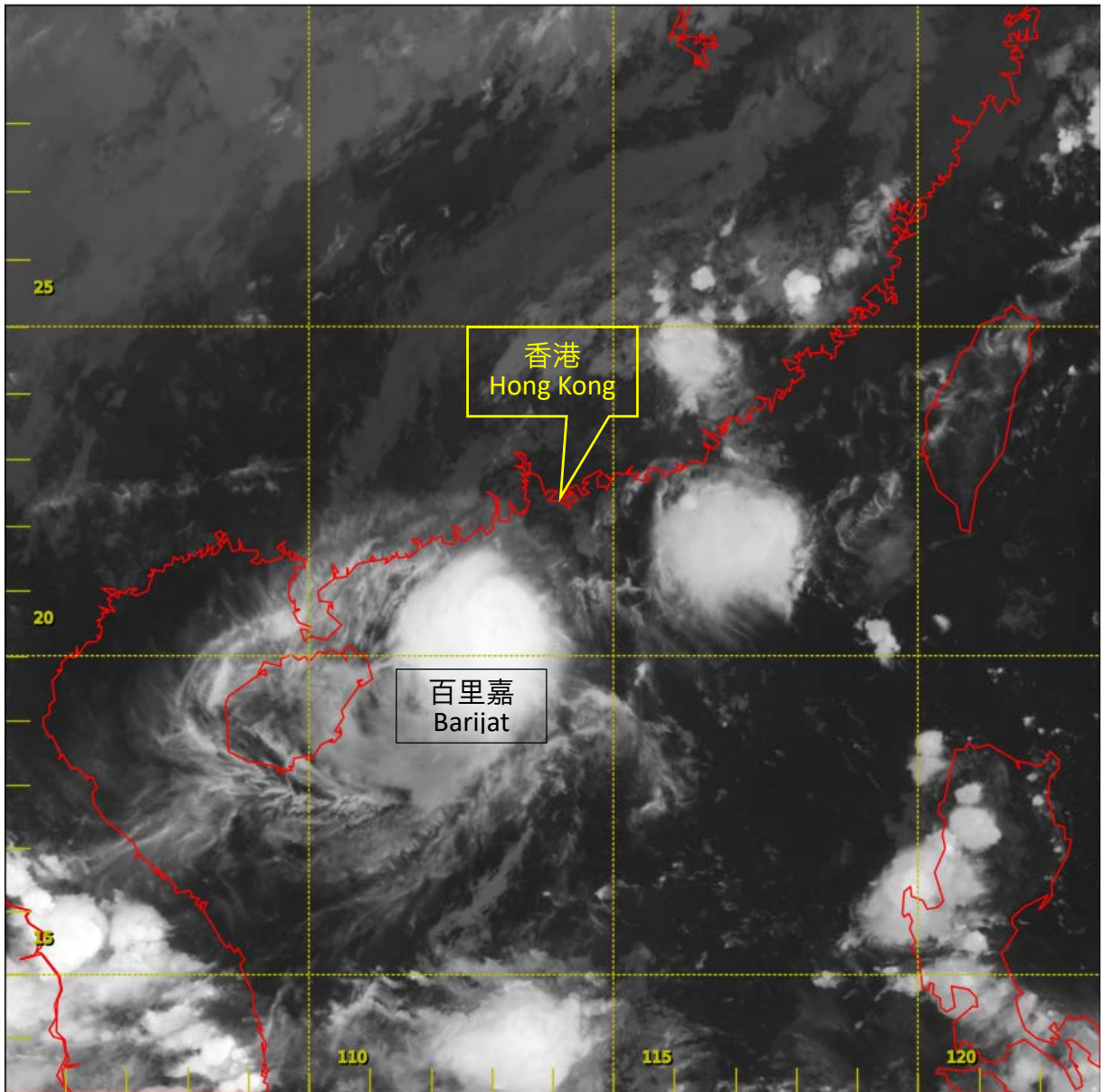


圖 3.4.2 二零一八年九月十二日下午 8 時的紅外線衛星圖片，當時百里嘉達到其最高強度，中心附近最高持續風速估計為每小時 85 公里。

Figure 3.4.2 Infra-red satellite imagery around 8 p.m. on 12 September 2018, when Barijat was at peak intensity with an estimated maximum sustained wind of 85 km/h near its centre.

[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).]

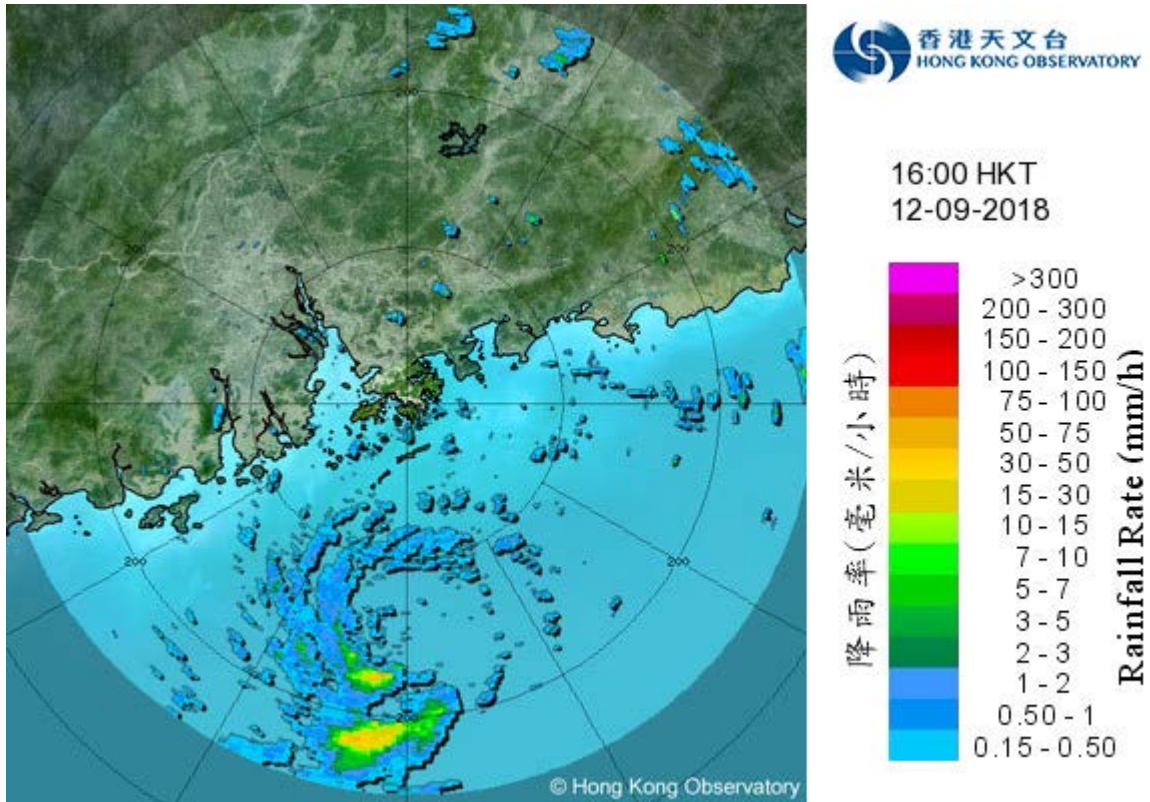


圖 3.4.3 二零一八年九月十二日下午 4 時的雷達回波圖像，當時百里嘉位於本港以南約 150 公里。與百里嘉相關的雨帶正影響廣東沿岸及南海北部。

Figure 3.4.3 Radar echoes captured at 4 p.m. on 12 September 2018 when the centre of Barijat was located about 150 km south of Hong Kong. Showers associated with Barijat were affecting the coast of Guangdong and the northern part of the South China Sea at the time.