每月天氣摘要 二零二三年十月

Monthly Weather Summary October 2023

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二零二三年十一月出版

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1. 二零二三年十月天氣回顧

由於華南大氣低層的水汽較正常多,二零二三年十月香港遠較正常多雲。本月平均雲量為百分之 79,較正常值的百分之 58 高百分之 21,是有記錄以來十月份的第二高。本月總日照亦只有 138.9 小時,較正常值的 197.8 小時少約百分之 30,是有記錄以來十月份的第四低。主要歸因於十月八日至九日與熱帶氣旋小犬相關的破紀錄雨量,本月亦遠較正常多雨。本月總雨量為 546.0 毫米,是正常值 120.3 毫米的四倍以上及有記錄以來十月份的第五高。本年首十個月的累積雨量為 2770.3 毫米,較同期正常值的 2363.1 毫米多約百分之 17。本月雖然陽光較少,但仍較正常溫暖。本月平均氣溫為 26.4 度,較正常值高 0.7 度,是有記錄以來十月份的其中一個第四高。本月初有 3 天酷熱天氣日數,是有記錄以來十月份的最多。

受高空反氣旋影響,除有幾陣驟雨及局部地區有雷暴外,本月首三日日間天氣酷熱及部分時間有陽光。與此同時,位於北太平洋西部的強颱風小犬向西北移向呂宋海峽。十月四日小犬轉向西移動,並在十月五日早上掠過台灣南部。隨後兩日小犬緩慢橫過南海北部,靠近珠江口。小犬在十月八日減弱為颱風,並於當晚在香港以南約 70 公里掠過。翌日小犬繼續橫過廣東沿岸海域,並於當晚逐步在陽江沿岸海域減弱為低壓區。

受小犬的外圍下沉氣流影響,十月四日至五日本港日間普遍天晴及天氣酷熱。天文台氣溫於十月四日下午上升至全月最高的 34.6 度,是有記錄以來最高的十月絕對最高氣溫。此外,當日平均氣溫達 30.8 度,是有記錄以來十月份的最高。隨著小犬靠近廣東沿岸,十月六日雖然日間部分時間有陽光,但晚上本港風力逐漸增強及有幾陣驟雨。本地風力在十月七日進一步增強,離岸達強風程度,而高地間中達烈風程度。當日天氣亦轉為多雲及有幾陣狂風驟雨。

隨著小犬移向珠江口一帶,本港天氣於十月八日顯著轉壞,而八號烈風或暴風信號於當日下午發出。當晚本地風力顯著增強,離岸及高地達暴風程度。九號烈風或暴風風力增強信號亦在當晚發出,當時小犬緊密及風力達颶風程度的眼壁在香港以南近距離掠過。隨著小犬減弱及遠離本港,本地風力在十月九日稍後緩和。小犬於十月八日至九日為本港帶來狂風大驟雨,天文台需要在十月九日上午發出黑色暴雨警告。天文台在十月九日錄得 369.7 毫米雨量,是十月份總雨量正常值 120.3 毫米的三倍以上,亦是有記錄以來十月份的最高日雨量。此外,十月八日下午三時至翌日下午三時的二十四小時雨量達 439.8 毫米,打破了十月份的最高紀錄。整體而言,本港大部分地區在十月八日至九日錄得超過 300 毫米雨量,而中西區、灣仔區、黃大仙區及觀塘區的雨量更超過 600 毫米。

受與小犬殘餘相關的外圍兩帶影響,十月十日多雲及有幾陣驟雨。隨著雲帶轉薄,十月十一日至十五日本港部分時間有陽光。而十月十三日至十五日日間乾燥。受一股清勁至強風程度的東北季候風影響,十月十六日至十七日短暫時間有陽光及有幾陣驟雨。與此同時,在南海中部的低壓區於十月十七日增強為熱帶低氣壓,隨後命名為三巴。十月十八日三巴向北緩慢移向北部灣,並增強為熱帶風暴。十月十九日三巴在北部灣及海南島一帶徘徊,並於翌日在該區逐漸消散。

受與三巴相關的兩帶影響,十月十八日至十九日本港多雲及間中有驟雨。本港大部分地區在這兩日錄得超過 20 毫米雨量,而沙田及銅鑼灣的雨量更超過 80 毫米。十月二十日本港持續多雲及有幾陣驟雨。與此同時,一道冷鋒在當日稍後橫過廣東沿岸。在與其相關的東北季候風影響下,本港隨後兩日天氣稍涼。在有雨的情況下,天文台氣溫於十月二十一日下降至全月最低的 22.0 度。十月二十二日本港天氣轉為乾燥及短暫時間有陽光。

受高空反氣旋影響,除十月二十三日早上有幾陣微雨外,十月二十三日至二十七日大致 天晴。受一股清勁至強風程度的東北季候風及一道廣闊雲帶影響,十月二十八日至二十九日 本港天氣轉為大致多雲及有幾陣驟雨。隨著雲層轉薄,本月最後兩日大致天晴及乾燥。

二零二三年十月有三個熱帶氣旋影響南海及北太平洋西部。

本月有一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 October 2023

With more than usual moisture in the lower atmosphere over southern China, October 2023 was much cloudier than usual in Hong Kong. The mean amount of cloud in the month was 79 percent, 21 percent above the normal of 58 percent and the second highest on record for October. The duration of bright sunshine in the month was only 138.9 hours, about 30 percent lower than the normal figure of 197.8 hours and the fourth lowest on record for October. Mainly attributing to the record-breaking rainfall associated with tropical cyclone Koinu on 8 – 9 October, the month was also much wetter than usual. The monthly total rainfall was 546.0 millimetres, more than four times of the normal figure of 120.3 millimetres and the fifth highest on record for October. The accumulated rainfall this year up to October was 2770.3 millimetres, about 17 percent more than the normal figure of 2363.1 millimetres for the same period. Despite the below normal sunshine, the month was warmer than usual. The mean temperature of 26.4 degrees was 0.7 degrees above the normal and one of the fourth highest for October on record. There were 3 very hot days in the early part of the month, the highest on record for October.

Under the influence of an anticyclone aloft, apart from a few showers and isolated thunderstorms, it was very hot with sunny periods during the day on the first three days of the month. Meanwhile, severe typhoon Koinu over the western North Pacific tracked northwestwards towards the Luzon Strait. It turned to move westwards on 4 October and skirted past the southern part of Taiwan on the morning of 5 October. Koinu moved slowly across the northern part of the South China Sea and edged towards the Pearl River Estuary in the next two days. Koinu weakened into a typhoon on 8 October and skirted past about 70 kilometres to the south of Hong Kong that night. It continued to move across the coastal waters of Guangdong the next day and weakened progressively into an area of low pressure over the coastal waters of Yangjiang on that night.

Under the influence of the outer subsiding air of Koinu, it was generally fine and very hot during the day in Hong Kong on 4-5 October. The maximum temperature at the Observatory soared to 34.6 degrees on the afternoon of 4 October, the highest of the month and the highest monthly absolute maximum temperature on record for October. Moreover, the daily mean temperature on that day reached 30.8 degrees, the highest on record for October. With Koinu edging closer to the coast of Guangdong, while there were sunny periods during the day, winds over Hong Kong picked up gradually and there were a few showers on the night of 6 October. Local wind strength increased further on 7 October with strong winds offshore and occasional gales on high ground. The weather also turned cloudy with a few squally showers on that day.

With Koinu moving towards the vicinity of the Pearl River Estuary, the weather of Hong Kong deteriorated significantly on 8 October and the Gale or Storm Signal No. 8 was issued on that afternoon. Local winds strengthened significantly and reached storm force offshore and on high ground that night. The Increasing Gale or Storm Signal No. 9 was also issued that night when the compact and hurricane force wind bearing eyewall of Koinu skirted past closely to the south of Hong Kong. With Koinu weakening and departing from Hong Kong, local winds moderated later on 9 October. Koinu brought squally heavy showers to Hong Kong on 8 – 9 October and necessitated the issuance of the Black Rainstorm Warning on the morning of 9 October. The rainfall recorded at the Observatory on 9 October reached 369.7 millimetres, more than three times of October's monthly total normal figure of 120.3 millimetres and the highest daily rainfall on record for October. Moreover, the 24-hour rainfall from 3 p.m. on 8 October to 3 p.m. next day reached 439.8 millimetres, breaking the highest record for October. Overall, more than 300 millimetres of rainfall were recorded over most parts of the territory and rainfall even exceeded 600 millimetres in Central and Western, Wan Chai, Wong Tai Sin and Kwun Tong Districts on 8 – 9 October.

Under the influence of the outer rainbands associated with the remnant of Koinu, it was cloudy with a few showers on 10 October. With the thinning out of the cloud bands, there were sunny periods in Hong Kong on 11 – 15 October. It was also dry during the day on 13 – 15 October. Affected by a fresh to strong northeast monsoon, there were sunny intervals and a few showers on 16 – 17 October. Meanwhile, an area of low pressure over the central part of the South China Sea intensified into a tropical depression on 17 October and was later named as Sanba. It moved northwards slowly towards Beibu Wan and intensified into a tropical storm on 18 October. Sanba lingered over the vicinity of Beibu Wan and Hainan Island on 19 October and dissipated gradually over there the next day.

Affected by the rainbands associated with Sanba, the weather of Hong Kong was cloudy with occasional showers on 18 – 19 October. More than 20 millimetres of rainfall were recorded over most parts of the territory and rainfall even exceeded 80 millimetres over Sha Tin and Causeway Bay on these two days. Local weather remained cloudy with a few showers on 20 October. Meanwhile, a cold front moved across the coast of Guangdong later on that day. Under the

influence of the associated northeast monsoon, the weather of Hong Kong became slightly cooler on the next two days. The temperatures at the Observatory fell to a minimum of 22.0 degrees on 21 October under rain patches, the lowest of the month. The weather became dry with sunny intervals on 22 October.

With the prevalence of the anticyclone aloft, apart from a few light rain patches on the morning of 23 October, it was mainly fine on 23 - 27 October. Affected by a fresh to strong northeast monsoon and a broad band of clouds, local weather turned mainly cloudy with a few showers on 28 - 29 October. With the clouds thinning out, it was mainly fine and dry on the last two days of the month.

Three tropical cyclones occurred over the South China Sea and the western North Pacific in October 2023.

During the month, one aircraft was 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 二零二三年十月發出的警告及信號

Table 1.1 Warnings and Signals issued in October 2023

熱帶氣旋警告信號

Tropical Cyclones Warning Signals

Tropical Cyclones Warning B	Tropical Cyclones Warning Signals				
		開始	時間	終結	時間
熱帶氣旋名稱	信號	Beginning Time		Ending Time	
Name of Tropical Cyclone	Signal Number	日/月	時	日/月	時
		day/month	hour	day/month	hour
	1	4/10	2140	6/10	1740
小犬	3	6/10	1740	8/10	1240
	8NE	8/10	1240	8/10	1900
KOINU	9	8/10	1900	8/10	2350
	8NE	8/10	2350	9/10	1140
	3	9/10	1140	9/10	1440
	1	9/10	1440	9/10	1620

暴雨警告信號

Rainstorm Warnings

顏色	開始時間		終結時間	
Colour	Beginni	ng Time	Ending Time	
Coloui	日/月	時	日/月	時
	day/month	hour	day/month	hour
黃色 Amber 紅色 Red 黑色 Black 紅色 Red 黃色 Amber	8/10 9/10 9/10 9/10 9/10	2025 0155 0400 1030 1430	9/10 9/10 9/10 9/10 9/10	0155 0400 1030 1430 1745

火災危險警告

Fire Danger Warnings

顏色	開始時間		終結時間	
Colour	Beginnin	Beginning Time		Time
Coloui	日/月	時	日/月	時
	day/month	hour	day/month	hour
黃色 Yellow	1/10	1030	1/10	1900
黄色 Yellow	2/10	0800	2/10	1800
紅色 Red	5/10	0800	6/10	1830
黄色 Yellow	14/10	0600	14/10	1900
黄色 Yellow	15/10	0600	15/10	1845
黄色 Yellow	22/10	0600	22/10	1945
黃色 Yellow	23/10	0600	23/10	1900
黃色 Yellow	29/10	0945	29/10	1700

山泥傾瀉警告

Landslip Warning

開始時間		終結時間	
Beginning Time		Ending Time	
日/月	時	日/月	時
day/month	hour	day/month	hour
9/10	0200	10/10	0630

雷暴警告

Thunderstorm Warning

開始時間		終結時間		
Beginning Time		Ending Time		
日/月	時	日/月 時		
day/month	hour	day/month hou		
1/10	0715	1/10	1000	
9/10	0035	9/10	1830	

酷熱天氣警告

Very Hot Weather Warning

開始時間		終結時間		
Beginning Time		Ending Time		
日/月	時	日/月 時		
day/month	hour	day/month hour		
29/9	1000	5/10	1800	
6/10	0645	6/10	1600	

新界北水浸特別報告

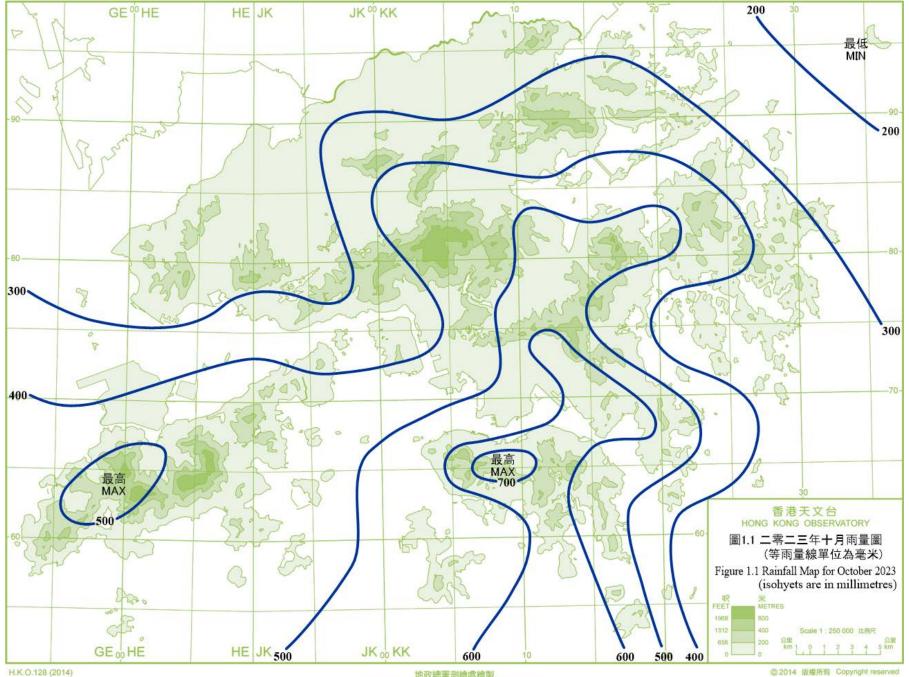
Special Announcement on Flooding in the northern New Territories

開始時間		終結時間		
Beginning Time		Ending Time		
日/月	時	日/月	時	
day/month	hour	day/month	hour	
9/10	0315	9/10	1615	

強烈季候風信號

Strong Monsoon Signal

開始時間		終結時間		
Beginning Time		Ending Time		
日/月	時	日/月	時	
day/month	hour	day/month	hour	
16/10	2245	19/10	0430	



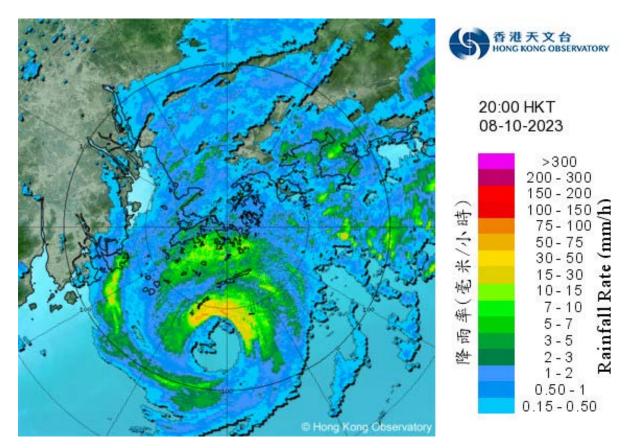


圖 1.2 小犬於 2023 年 10 月 8 日晚上 8 時在香港以南掠過的雷達圖像

Figure 1.2 Radar imagery of Koinu skirting to the south of Hong Kong at 8 p.m. on 8 October 2023

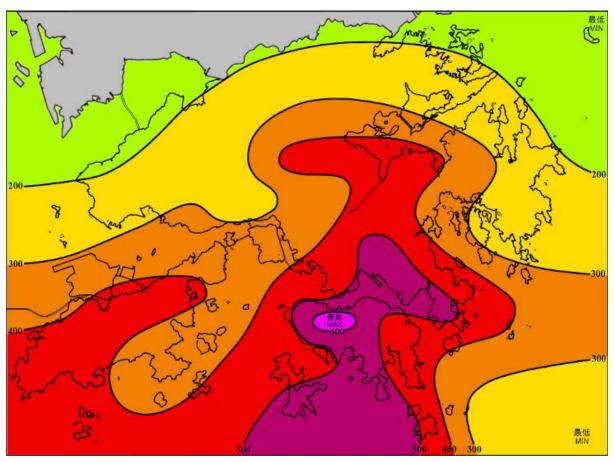


圖 1.3 二十四小時雨量分佈圖(2023 年 10 月 8 日下午 3 時至 2023 年 10 月 9 日下午 3 時)

Figure 1.3 24-hour rainfall distribution map (3 p.m. on 8 October 2023 to 3 p.m. on 9 October 2023)

2.1 二零二三年十月的熱帶氣旋概述

二零二三年十月在北太平洋西部及南海區域出現了三個熱帶氣旋,當中小犬引 致天文台需要發出熱帶氣旋警告信號。

熱帶低氣壓小犬於九月二十八日晚上在馬尼拉以東約 1920 公里的北太平洋西部上形成,隨後向偏西移動,並逐漸增強。九月三十日下午及隨後三日小犬轉向西北移動,橫過菲律賓以東海域。期間小犬於十月二日下午增強為強颱風,並於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 175 公里。小犬於十月四日採取偏西路徑,移向台灣南部一帶。翌日小犬掠過台灣南部後減弱為颱風,隨後向西南偏西移動,橫過南海北部。小犬於十月六日晚上再次增強為強颱風,並逐漸轉向西北偏西緩慢移動,靠近廣東沿岸。隨後兩日小犬以強颱風至颱風強度進一步緩慢靠近珠江口一帶。但受東北季候風影響,小犬於十月九日迅速減弱,並逐漸轉向西南移動,最後於當晚在陽江沿岸海域逐步減弱為低壓區。

根據報章報導,小犬吹襲台灣期間,造成一死 399 人受傷,超過六千戶停水及 46 萬戶停電,約 3000 人需要撤離,經濟損失超過 1800 萬美元。在澳門,風暴期間有兩人受傷,另有 13 宗事故報告,當中包括塌樹及山泥傾瀉。有關小犬的詳細資料及對香港的影響,請參閱其熱帶氣旋報告。

熱帶低氣壓布拉萬於十月七日早上在關島之東南偏東約 1 140 公里的太平洋西部上形成,初時向西緩慢移動。隨後三日布拉萬採取西北偏西或西北路徑,移向硫黃島一帶,並逐漸增強。布拉萬於十月十一日早上增強為超強颱風,並於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 250 公里。翌日布拉萬逐漸轉向東北移動,並於隨後兩日減弱,最後於十月十四日晚上在北太平洋西部演變為溫帶氣旋。

熱帶低氣壓三巴於十月十七日下午在峴港以東約 220 公里的南海中部上形成,向西北偏北移動,移向北部灣一帶,並逐漸增強。三巴於翌日早上增強為熱帶風暴,並於十月十九日晚上達到其最高強度,中心附近最高持續風速估計為每小時 85 公里。三巴於十月二十日在北部灣一帶徘徊,並掠過雷州半島,最後於當晚在北部灣減弱為低壓區。

根據報章報導,受三巴及其殘餘相關的大暴雨影響,十月十七日至二十一日期間,廣東、廣西及海南多地出現嚴重水浸,多個氣象站錄得破紀錄的雨量,其中廣西北海錄得 780.3 毫米的二十四小時雨量,打破廣西有氣象記錄以來的紀錄。三巴吹襲廣東、廣西及海南期間,有至少四人死亡或失蹤,超過 213 萬人受災。

2.1 Overview of Tropical Cyclone in October 2023

Three tropical cyclones occurred over the western North Pacific and the South China Sea in October 2023. Among them, Koinu necessitated the issuance of the tropical cyclone warning signals by the Observatory.

Koinu formed as a tropical depression over the western North Pacific about 1 920 km east of Manila on the night of 28 September. It then moved westwards and intensified gradually. It turned to move northwestwards across the seas east of the Philippines on the afternoon of 30 September and in the following three days. During this period, Koinu intensified into a severe typhoon on the afternoon of 2 October and attained its peak intensity with an estimated maximum sustained wind of 175 km/h near its centre that night. Koinu tracked westwards towards the vicinity of the southern part of Taiwan on 4 October. After moving across the southern part of Taiwan the next day, Koinu weakened into a typhoon and then moved west-southwestwards across the northern part of the South China Sea. Koinu intensified into a severe typhoon again on the night of 6 October and turned gradually to move west-northwestwards, edging slowly towards the coast of Guangdong. It further moved slowly towards the vicinity of the Pearl River Estuary with severe typhoon to typhoon intensity in the following two days. However, under the influence of the northeast monsoon, Koinu weakened rapidly and turned gradually to move southwestwards on 9 October. Finally, it degenerated progressively into an area of low pressure over the coastal waters of Yangjiang that night.

According to press reports, one person was killed and 399 people were injured when Koinu affected Taiwan. Water and electricity supply to more than 6 000 and 460 000 households were disrupted respectively. Around 3 000 people were displaced. Economic loss exceeded USD 18 million. In Macao, two people were injured during the passage of Koinu. There were also 13 incident reports, including fallen trees and landslides. For detailed information of Koinu including its impact to Hong Kong, please refer to the Tropical Cyclone Report of Koinu.

Bolaven formed as a tropical depression over the western North Pacific about 1 140 km east-southeast of Guam on the morning of 7 October. It moved slowly westwards at first. It tracked west-northwestwards or northwestwards towards the vicinity of Iwo

Jima and intensified gradually in the following three days. Bolaven intensified into a super typhoon on the morning of 11 October and attained its peak intensity with an estimated maximum sustained wind of 250 km/h near its centre that night. Bolaven gradually turned to move northeastwards the next day and weakened in the following two days. Finally, it evolved into an extratropical cyclone over the western North Pacific on the night of 14 October.

Sanba formed as a tropical depression over the central part of the South China Sea about 220 km east of Da Nang on the afternoon of 17 October. It moved north-northwestwards towards the vicinity of Beibu Wan and intensified gradually. Sanba intensified into a tropical storm the next morning and attained its peak intensity with an estimated maximum sustained wind of 85 km/h near its centre on the night of 19 October. Sanba lingered over the vicinity of Beibu Wan and skirted past Leizhou Peninsula on 20 October. Finally, it degenerated into an area of low pressure over Beibu Wan that night.

According to press reports, under the influence of the torrential rain associated with Sanba and its remnant, there were severe flooding over many places in Guangdong, Guangxi and Hainan provinces during 17 – 21 October. Record-breaking rainfall was recorded at many meteorological stations. Among them, Beihai, Guangxi recorded a 24-hour rainfall of 780.3 millimetres, breaking respective record since meteorological records began in Guangxi. At least four people were killed or missing and more than 2.13 million people were affected in Guangdong, Guangxi and Hainan provinces during the passage of Sanba.

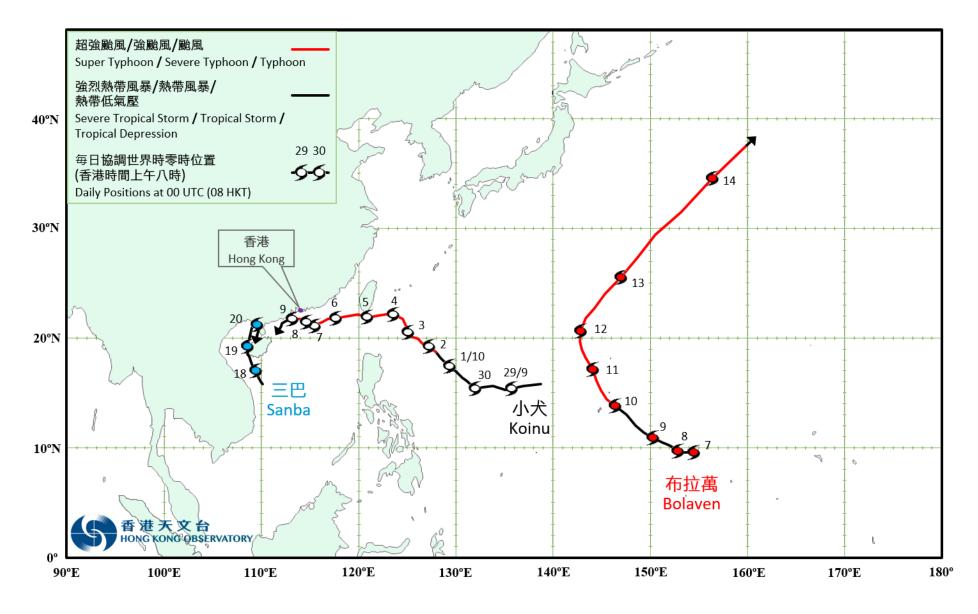


圖 2.1 二零二三年十月的熱帶氣旋暫定路徑圖

Fig. 2.1 Provisional Tropical Cyclone Tracks in October 2023

2.2 強颱風小犬(2314)

二零二三年九月二十八日至十月九日

小犬是二零二三年第五個影響香港的熱帶氣旋。繼同年的蘇拉襲港後, 天文台在小犬襲港期間再次需要發出九號烈風或暴風風力增強信號。小犬 於十月八日至九日為本港帶來狂風大驟雨。天文台在十月九日錄得 369.7 毫 米雨量,是十月份總雨量正常值 120.3 毫米的三倍以上,亦是有記錄以來十 月份的最高日雨量。此外,十月八日下午三時至翌日下午三時的二十四小 時雨量達 439.8 毫米,打破了十月份的最高紀錄。

熱帶低氣壓小犬於九月二十八日晚上在馬尼拉以東約 1 920 公里的北太平洋西部上形成,隨後向偏西移動,並逐漸增強。九月三十日下午及隨後三日小犬轉向西北移動,橫過菲律賓以東海域。期間小犬於十月二日下午增強為強颱風,並於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 175 公里。小犬於十月四日採取偏西路徑,移向台灣南部一帶。翌日小犬掠過台灣南部後減弱為颱風,隨後向西南偏西移動,橫過南海北部。小犬於十月六日晚上再次增強為強颱風,並逐漸轉向西北偏西緩慢移動,靠近廣東沿岸。隨後兩日小犬以強颱風至颱風強度進一步緩慢靠近珠江口一帶。但受東北季候風影響,小犬於十月九日迅速減弱,並逐漸轉向西南移動,最後於當晚在陽江沿岸海域逐步減弱為低壓區。

根據報章報導,小犬吹襲台灣期間,造成1死399人受傷,超過六千戶停水及46萬戶停電,約3000人需要撤離,經濟損失超過1800萬美元。在澳門,風暴期間有2人受傷,另有13宗事故報告,當中包括塌樹及山泥傾瀉。

天文台在十月四日晚上 9 時 40 分發出一號戒備信號,當時小犬集結在香港以東約 790 公里。在東北季候風及小犬的共同影響下,翌日本港普遍吹和緩至清勁偏北風,離岸及高地間中吹強風。隨著小犬靠近廣東沿岸,天文台在十月六日下午 5 時 40 分發出三號強風信號,當時小犬位於香港之東南偏東約 260 公里。十月七日至翌日早上本港風勢逐漸增強,多處地方吹達強風程度偏北風,離岸及高地間中吹烈風。

由於小犬穩定地靠近珠江口一帶,預料與其相關的烈風區會影響本港, 天文台在十月八日下午 12 時 40 分發出八號東北烈風或暴風信號,當時小 犬集結在天文台總部之東南偏南約 90 公里。隨後本地風力顯著增強,南部 多處地方吹烈風,離岸及高地更達暴風程度。小犬在下午稍後進一步靠近 本港,對本港構成威脅。當小犬的眼壁影響香港以南約 50 公里的黃茅洲時, 該站之風速在短時間內急劇上升,錄得高達每小時 120 公里的颶風風力。 天文台在十月八日晚上 7 時正發出九號烈風或暴風風力增強信號,當時小 犬位於天文台總部以南只有約 70 公里。隨後黃茅洲風力進一步增強,與小 犬相關的強雨帶亦影響本港。小犬當晚最接近本港,以強颱風強度於天文 台總部以南約70公里掠過。

隨著小犬減弱並逐漸遠離香港,香港不再受颶風威脅,天文台在十月八日晚上 11 時 50 分改發八號東北烈風或暴風信號。隨後本港風力繼續減弱,天文台在十月九日上午 11 時 40 分改發三號強風信號,並於下午 2 時 40 分改發一號戒備信號。隨著小犬進一步遠離本港及減弱,天文台在當日下午 4 時 20 分取消所有熱帶氣旋警告信號。

風力結構上,小犬在南海北部時的環流相當緊密,衛星圖像(圖 2.2.3c) 顯示其螺旋雲帶覆蓋範圍遠小於二零一八年環流廣闊的山竹,即使跟同年的蘇拉相比,小犬的雲帶亦更為細小。而雷達圖像(圖 2.2.4b)顯示當小犬在 香港以南近距離掠過時,小犬緊密及風力達颶風程度的眼壁距離長洲只有 約30公里。

在小犬的影響下,橫瀾島、青洲及長洲錄得的最高每小時平均風速分別為每小時 89、71 及 71 公里,而最高陣風則分別為每小時 111、103 及 94 公里。橫瀾島錄得最高潮位 2.84 米(海圖基準面以上),而尖鼻咀則錄得最大風暴潮(天文潮高度以上) 0.65 米。各站錄得的最低瞬時海平面氣壓如下:

站	最低瞬時	日期/月份	時間
	海平面氣壓		
	(百帕斯卡)		
香港天文台總部	1005.1	5/10	下午2時54分
香港國際機場	1005.8	5/10	下午3時19分
長洲	1005.5	5/10	下午3時03分
京士柏	1005.2	5/10	下午3時04分
流浮山	1005.2	5/10	下午3時01分
坪洲	1005.1	5/10	下午2時43分
沙田	1005.5	5/10	下午2時45分
上水	1005.4	5/10	下午2時37分
打鼓嶺	1005.2	5/10	下午3時07分
大埔	1005.8	5/10	下午3時10分
橫瀾島	1004.6	8/10	下午4時20分

受小犬的外圍下沉氣流影響,十月四日至五日本港日間普遍天晴及天氣酷熱。天文台氣溫於十月四日下午上升至34.6度,是有記錄以來最高的十月絕對最高氣溫。此外,當日平均氣溫達30.8度,亦是有記錄以來十月份的最高。十月六日雖然日間部分時間有陽光,但隨著小犬靠近廣東沿岸,本港天氣於當晚至翌日轉為多雲及有幾陣狂風驟雨。受小犬相關的強雨帶影響,十月八日至九日本港有狂風大驟雨,天文台需要在十月九日上午發出黑色暴雨警告。本港大部分地區在十月八日至九日錄得超過300毫米雨

量,而中西區、灣仔區、黃大仙區及觀塘區的雨量更超過600毫米。

小犬吹襲香港期間,有至少205 宗塌樹報告、兩宗山泥傾瀉報告及7宗水浸報告。跑馬地有大樹塌下,擊中兩名清潔工人。風暴期間共造成29人受傷。將軍澳一處山坡有山泥傾瀉。小犬亦嚴重影響本港的公共交通,港鐵所有露天段的鐵路服務曾一度暫停。香港國際機場至少有90班航班取消。此外,部分旅客因陸路交通暫停而需要在機場逗留。

2.2 Severe Typhoon Koinu (2314)28 September – 9 October 2023

Koinu was the fifth tropical cyclone affecting Hong Kong in 2023. Koniu necessitated the issuance of the Increasing Gale or Storm Signal No. 9 again since Saola hitting Hong Kong in the same year. Koinu brought squally heavy showers to Hong Kong on 8 – 9 October. The rainfall recorded at the Observatory on 9 October reached 369.7 millimetres, more than three times of October's monthly total normal figure of 120.3 millimetres and was the highest daily rainfall on record for October. Moreover, the 24-hour rainfall from 3 p.m. on 8 October to 3 p.m. next day reached 439.8 millimetres, breaking the highest record for October.

Koinu formed as a tropical depression over the western North Pacific about 1 920 km east of Manila on the night of 28 September. It then moved westwards and intensified gradually. It turned to move northwestwards across the seas east of the Philippines on the afternoon of 30 September and in the following three days. During this period, Koinu intensified into a severe typhoon on the afternoon of 2 October and attained its peak intensity with an estimated maximum sustained wind of 175 km/h near its centre that night. Koinu tracked westwards towards the vicinity of the southern part of Taiwan on After moving across the southern part of Taiwan the next day, Koinu 4 October. weakened into a typhoon and then moved west-southwestwards across the northern part of the South China Sea. Koinu intensified into a severe typhoon again on the night of 6 October and turned gradually to move westnorthwestwards, edging slowly towards the coast of Guangdong. moved slowly towards the vicinity of the Pearl River Estuary with severe typhoon to typhoon intensity in the following two days. However, under the influence of the northeast monsoon, Koinu weakened rapidly and turned gradually to move southwestwards on 9 October. Finally, it degenerated progressively into an area of low pressure over the coastal waters of Yangjiang that night.

According to press reports, one person was killed and 399 people were injured when Koinu affected Taiwan. Water and electricity supply to more than 6 000 and 460 000 households were disrupted respectively. Around 3 000 people were displaced. Economic loss exceeded USD 18 million. In Macao, two people were injured during the passage of Koinu. There were also 13 incident reports, including fallen trees and landslides.

The Standby Signal No. 1 was issued at 9:40 p.m. on 4 October, when Koinu was about 790 km east of Hong Kong. Under the combined effect of the

northeast monsoon and Koinu, local winds were generally moderate to fresh northerlies the next day, occasionally strong offshore and on high ground. With Koinu edging closer to the coast of Guangdong, the No. 3 Strong Wind Signal was issued at 5:40 p.m. on 6 October, when Koinu was about 260 km east-southeast of Hong Kong. Local winds strengthened gradually from 7 October to the next morning, with strong northerlies prevailing over many places and gale winds occasionally affecting offshore and high ground.

As Koinu steadily approached the vicinity of the Pearl River Estuary and its associated gale force winds were expected to affect Hong Kong, the No. 8 Northeast Gale or Storm Signal was issued at 12:40 p.m. on 8 October when Koinu was about 90 km south-southeast of the Observatory Headquarters. Local winds then strengthened significantly with gale winds prevailing over many places in the southern part of the territory, and even reached storm force offshore and on high ground. Koinu came further closer to Hong Kong later in the afternoon, posing a threat to Hong Kong. When the eyewall of Koinu affected Huangmaozhou, around 50 km to the south of Hong Kong, the wind speed at that station increased sharply within a short period of time, reaching hurricane force winds up to 120 km/h. The Increasing Gale or Storm Signal No. 9 was issued at 7:00 p.m. on 8 October when Koinu was only about 70 km south of the Observatory Headquarters. Subsequently, winds at Huangmaozhou further strengthened and the intense rainbands associated with Koinu also affected Hong Kong. Koinu came closest to Hong Kong that night, skirting past about 70 km to the south of the Observatory Headquarters with severe typhoon intensity.

As Koinu weakened and departed from Hong Kong gradually, hurricane force winds no longer posed threat to the territory and the No. 8 Northeast Gale or Storm Signal was issued at 11:50 p.m. on 8 October to replace the Increasing Gale or Storm Signal No. 9. With local winds continuing to moderate, the No. 3 Strong Wind Signal was issued at 11:40 a.m. on 9 October, followed by the issuance of No. 1 Standby Signal at 2:40 p.m. As Koinu further departed from the territory and weakened, all tropical cyclone warning signals were cancelled at 4:20 p.m on that day.

As regards the wind structure, the circulation of Koinu over the South China Sea was rather compact. Satellite imageries (Figure 2.2.3c) showed that the coverage of its spiral rainbands was much smaller than the extensive circulation of Mangkhut and even smaller than that of Saola in the same year. Radar imagery (Figure 2.2.4b) depicted that, when Koinu passed closely south of Hong Kong, the tight and hurricane force wind bearing eyewall of Koinu was

only about 30 kilometers away from Cheung Chau.

Under the influence of Koinu, maximum hourly mean winds of 89, 71 and 71 km/h and gusts of 111, 103 and 94 km/h were recorded at Waglan Island, Green Island and Cheung Chau respectively. A maximum sea level (above chart datum) of 2.84 m was recorded at Waglan Island and a maximum storm surge (above astronomical tide) of 0.65 m was recorded at Tsim Bei Tsui. The lowest instantaneous mean sea-level pressures recorded at some selected stations are as follows:

Station	Lowest instantaneous mean sea-level	Date/Month	Time
	pressure (hPa)		
Hong Kong Observatory	1005.1	5/10	2:54 p.m.
Headquarters			
Hong Kong International	1005.8	5/10	3:19 p.m.
Airport			
Cheung Chau	1005.5	5/10	3:03 p.m.
King's Park	1005.2	5/10	3:04 p.m.
Lau Fau Shan	1005.2	5/10	3:01 p.m.
Peng Chau	1005.1	5/10	2:43 p.m.
Sha Tin	1005.5	5/10	2:45 p.m.
Sheung Shui	1005.4	5/10	2:37 p.m.
Ta Kwu Ling	1005.2	5/10	3:07 p.m.
Tai Po	1005.8	5/10	3:10 p.m.
Waglan Island	1004.6	8/10	4:20 p.m.

Under the influence of the outer subsiding air of Koinu, it was generally fine and very hot in Hong Kong during the day on 4 – 5 October. The temperature at the Observatory soared to a maximum of 34.6 degrees on the afternoon of 4 October, the highest monthly absolute maximum temperature on record for October. Moreover, the daily mean temperature on that day reached 30.8 degrees, also the highest on record for October. With Koinu edging closer to the coast of Guangdong, while there were sunny periods during the day on 6 October, the local weather turned cloudy with a few squally showers from that night to the next day. Affected by the intense rainbands associated with Koinu, there were squally heavy showers in Hong Kong on 8 – 9 October, necessitating the issuance of the Black Rainstorm Warning on the morning of 9 October. More than 300 millimetres of rainfall were recorded over most parts of Hong

Kong and rainfall even exceeded 600 millimetres in Central and Western, Wan Chai, Wong Tai Sin and Kwun Tong Districts on 8-9 October.

In Hong Kong, there were at least 205 reports of fallen trees, 2 reports of landslides and 7 reports of flooding during the passage of Koinu. A tree fell and hit two cleaning workers in Happy Valley. A total of 29 people were injured during the passage of Koinu. A landslide occurred on a mountain slope in Tseung Kwan O. Public transportation services in Hong Kong were also seriously affected by Koinu. Train services on all open sections of the MTR railway were once suspended. At least 90 flights were cancelled at the Hong Kong International Airport. Besides, some passengers had to stay at the airport due to suspension of land transport.

表 2.2.1 在小犬影響下,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 Koinu were in force

站			最高陣風 Maximum G	ust	最高每小時平均風速 Maximum Hourly Mean Wind						
Station (https://www.hko.gov.hk/tc/ informtc/station2023.html)		風向 Direction		風速 (公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Directio	on	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	Е	94	8/10	20:47	東南	SE	48	9/10	01:00
中環碼頭	Central Pier	東北偏東	ENE	75	8/10	20:09	東	Е	42	8/10	23:00
長洲	Cheung Chau	北	N	94	8/10	17:54	東	Е	71	9/10	01:00
長洲泳灘	Cheung Chau Beach	東北	NE	98	8/10	20:56	東北	NE	68	8/10	21:00
青洲	Green Island	東北偏北	NNE	103	8/10	17:15	北	N	71	8/10	19:00
香港國際機場	Hong Kong International Airport	東北偏北	NNE	59	8/10	20:09	東北偏北	NNE	36	8/10	23:00
啟德	Kai Tak	東南偏東	ESE	67	9/10	02:39	東南偏東	ESE	28	9/10	01:00
京士柏	King's Park	東北偏北	NNE	78	8/10	18:46	東北偏北	NNE	32	8/10	19:00
南丫島	Lamma Island	東北偏東	ENE	78	8/10	21:18	西北偏北	NNW	40	8/10	02:00
×	Lau Fau Shan	東北偏北	NNE	59	8/10	14:07	:07	NINIE	39	8/10	20:00
流浮山		東北偏北	NNE	59	8/10	19:23 東北偏北	NNE	39	8/10	20:00	
昂坪	Ngong Ping	東	Е	96	9/10	02:15	東	Е	67	9/10	03:00
北角	North Point	東	Е	81	8/10	21:56	東北偏東	ENE	51	8/10	23:00
坪洲	Peng Chau	東北	NE	82	8/10	20:18	東北	NE	50	8/10	21:00
平洲	Ping Chau	東北偏東	ENE	44	9/10	03:59	東北偏東	ENE	17	9/10	00:00
西貢	Sai Kung	北	N	83	8/10	17:11	北	N	46	8/10	19:00
沙洲	Sha Chau	北	N	87	8/10	20:11	北	N	65	8/10	21:00
沙螺灣	Sha Lo Wan	東北	NE	47	8/10	22:21	東北	NE	21	8/10	22:00
沙田	Sha Tin	東北	NE	61	9/10	00:23	東北偏北	NNE	22	8/10	19:00
	Star Ferry (Kowloon)	東	Е	59	9/10	00:42 00:43 東		Е	20		02.00
九龍天星碼頭		東	Е	59	9/10		Е	28	9/10	02:00	
	T. W. I.	± 11 /= 11	ND.TE		0.11.0	00.51	東北偏北	NNE	24	7/10	23:00
打鼓嶺	Ta Kwu Ling	東北偏北	NNE	56	8/10	00:51	90:51 東北偏北	NNE	24	8/10	19:00
大美督	Tai Mei Tuk	東北偏北	NNE	99	8/10	17:11	東北	NE	60	8/10	20:00
大帽山	Tai Mo Shan	東北偏東	ENE	110	8/10	12:09	東北	NE	67	8/10	09:00
塔門東	Tap Mun East	東北偏東	ENE	71	9/10	03:26	東北偏東	ENE	44	9/10	04:00
大老山	Tate's Cairn	東北	NE	135	8/10	18:39	東北偏東	ENE	102	8/10	19:00
將軍澳	Tseung Kwan O	東北偏北	NNE	71	8/10	19:52	東北偏北	NNE	24	8/10	21:00
青衣島蜆殼油 庫	Tsing Yi Shell Oil Depot	西北	NW	44	8/10	03:31	西北	NW	22	7/10	12:00
屯門政府合署	Tuen Mun Government Offices	北	N	55	8/10	20:53	東北偏北	NNE	17	9/10	03:00
横瀾島	Waglan Island	Island 東北	NE	111	8/10	16:20	東北	NE	89	8/10	17:00
1年17日	Watland Do-1-	事业[6].	NINTE	27	0/10	12:26	東北偏東	ENE	89	8/10	19:00
濕地公園	Wetland Park	東北偏北	NNE	37	8/10	13:36	東北偏北	NNE	10	8/10	23:00
黃竹坑	Wong Chuk Hang	東	Е	87	8/10	18:17	東北偏東	ENE	27	8/10	21:00

石崗、大埔滘- 沒有資料

Shek Kong, Tai Po Kau – data not available

- 表 2.2.2 在小犬影響下,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及烈風程度的時段
- Table 2.2.2 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 Koinu were in force

		最初達到強風* 時間		最後達到強風* 時間		最初達到烈風# 時間		最後達到烈風# 時間	
Station (https://www.hko.gov.hk/tc/informtc/station2023.html)		Start time when		End time when strong wind speed* was attained		Start time when gale force wind		End time when gale force wind speed# was attained	
		日期/月份	時間	日期/月份	時間	日期/月份	時間	日期/月份	時間
		Date/Month	Time	Date/Month	Time	Date/Month	Time	Date/Month	Time
長洲	Cheung Chau	7/10	20:02	9/10	08:15	8/10	18:01	9/10	02:02
流浮山	Lau Fau Shan	8/10	18:31	8/10	19:47	-			
西貢	Sai Kung	8/10	12:17	9/10	04:17	-			

香港國際機場、啟德、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 Hong Kong International Airport, Kai Tak, Sha Tin, Ta Kwu Ling 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: 本表列出持續風力達到強風及烈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 or gale force winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 2.2.3 小犬影響香港期間,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 Koinu

			ı	I	ı	1	1	I	I
站 (參閱圖 2.2.2)			十月四日	十月五日	十月六日	十月七日	十月八日		總雨量(毫米) Total rainfall
Station (See Fig. 2.2.2)			4 Oct	Oct 5 Oct 6 Oct 7 Oct		8 Oct	9 Oct	(mm)	
香港天文台 Hong Kong Observatory (HKO)			0.0	0.0	微量 Trace	1.9	92.2	369.7	463.8
香港國際機場 Hong Kong International Airport (HKA)			0.0	0.0	0.1	9.8	42.7	351.9	404.5
長洲	長洲 Cheung Chau (CCH)		0.0	0.0	0.0	0.5	117.0	249.0	366.5
H23	香港仔	Aberdeen	0.0	0.0	0.0	1.0	128.5	329.5	459.0
N05	粉嶺	Fanling	0.0	0.0	0.0	3.5	42.5	210.5	256.5
N13	糧船灣	High Island	0.0	0.0	0.0	0.5	90.0	224.0	314.5
K04	佐敦谷	Jordan Valley	0.0	0.0	0.0	3.0	111.0	445.5	559.5
N06	葵涌	Kwai Chung	0.0	0.0	0.0	0.0	73.0	328.0	401.0
H12	半山區	Mid Levels	0.0	0.0	0.0	2.0	110.0	422.5	534.5
N09	沙田	Sha Tin	0.0	0.0	0.0	3.0	117.0	366.0	486.0
H19	筲箕灣	Shau Kei Wan	0.0	0.0	0.0	0.0	153.5	418.0	571.5
SEK	石崗	Shek Kong	0.0	0.0	0.0	0.5	65.0	271.0	336.5
K06	蘇屋邨	So Uk Estate	0.0	0.0	0.0	0.5	109.0	330.5	440.0
R31	大美督	Tai Mei Tuk	0.0	0.0	0.0	1.0	87.5	234.0	322.5
R21	踏石角	Tap Shek Kok	0.0	0.0	0.0	3.5	28.5	215.0	247.0
N17	東涌	Tung Chung	0.0	0.0	0.0	7.0	120.0	381.5	508.5
TMR	屯門水庫	Tuen Mun Reservoir	0.0	0.0	0.1	1.8	38.5	221.2	261.6

表 2.2.4 小犬影響香港期間,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 Koinu

站 Station (https://www.hko.gov.hk/tc/ informtc/station2023.html)		最高潮值	立 (海圖基準面	i以上)	最大風暴潮 (天文潮高度以上)			
		Ma	ximum sea leve	el	Maximum storm surge			
		(ab	ove chart datum	1)	(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	2.67	7/10	01:57	0.50	6/10	20:17	
石壁	Shek Pik	2.65	6/10	02:04	0.58	6/10	14:50	
大廟灣	Tai Miu Wan	2.68	7/10	02:21	0.53	7/10	02:21	
大埔滘	Tai Po Kau	2.77	7/10	02:36	0.56	7/10	02:36	
尖鼻咀	Tsim Bei Tsui	2.78	5/10	00:06	0.65	9/10	14:06	
横瀾島	Waglan Island	2.84	7/10	02:08	0.56	6/10	14:16	

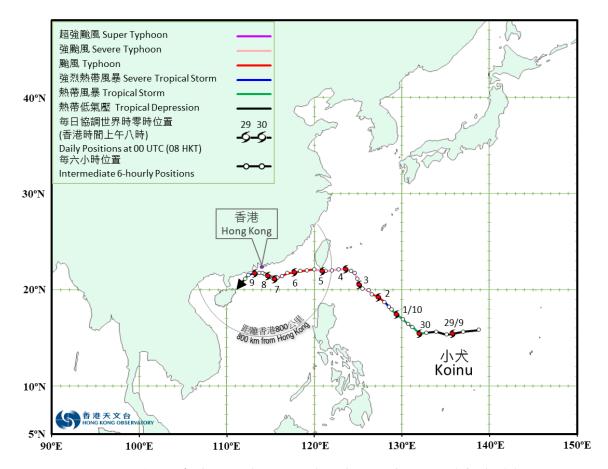


圖 2.2.1a 二零二三年九月二十八日至十月九日小犬(2314)的暫定路徑圖。

Figure 2.2.1a Provisional track of Koinu (2314): 28 September – 9 October 2023.



圖 2.2.1b 小犬(2314)接近香港時的暫定路徑圖。

Figure 2.2.1b Provisional track of Koinu (2314) near Hong Kong.

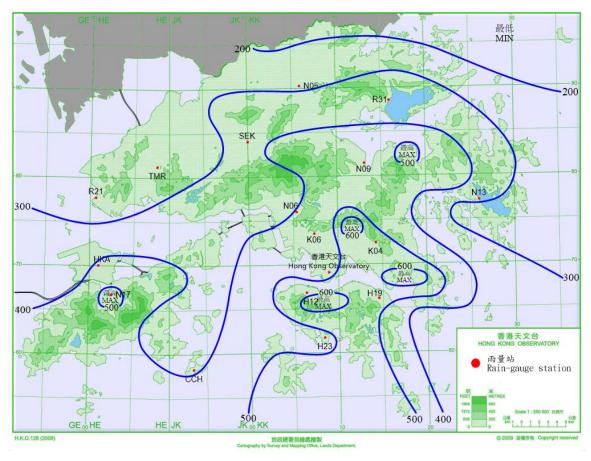


圖 2.2.2 二零二三年十月四日至九日的雨量分佈(等雨量線單位為毫米)。

Figure 2.2.2 Rainfall distribution on 4-9 October 2023 (isohyets are in millimetres).

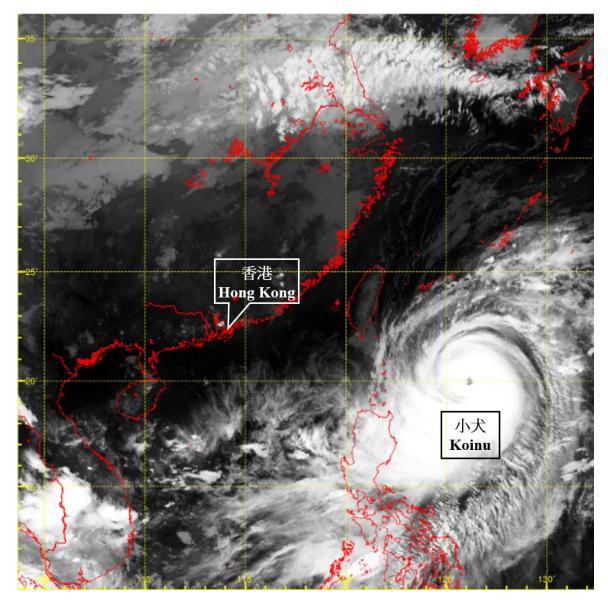


圖 2.2.3a 二零二三年十月二日晚上八時左右的紅外線衛星圖片。當時小犬達到 其最高強度,中心附近最高持續風速估計為每小時 175 公里。

Figure 2.2.3a Infra-red satellite imagery at around 8 p.m. on 2 October 2023 when Koinu was at its peak intensity with an estimated maximum sustained wind of 175 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency.]

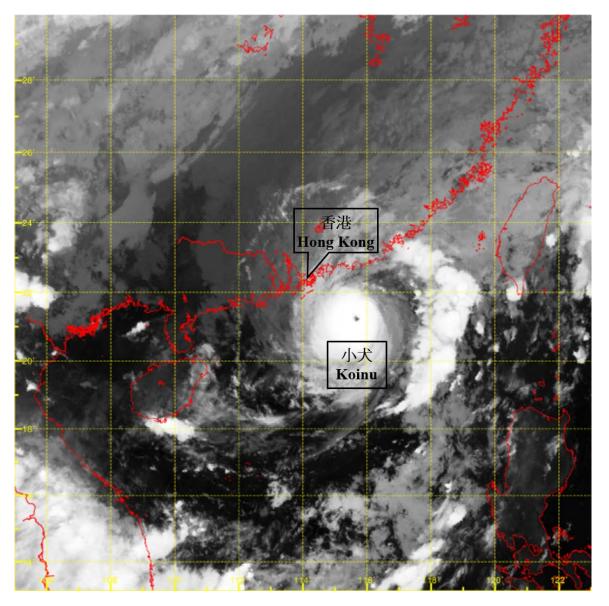
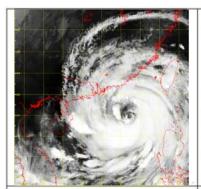


圖 2.2.3b 二零二三年十月七日上午二時左右的紅外線衛星圖片。小犬的環流緊密,螺旋雲帶覆蓋範圍相當細小。此外,當時小犬的中心附近最高持續風速估計為每小時 165 公里。

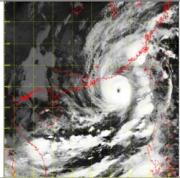
Figure 2.2.3b Infra-red satellite imagery at around 2 a.m. on 7 October 2023. The circulation of Koinu was compact with rather small coverage of the spiral rainbands. In addition, the maximum sustained wind near the centre of Koinu was estimated to be 165 km/h.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

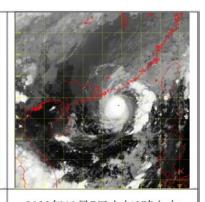
[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency.]



2018年9月16日上午2時左右 山竹的衞星圖像 Satellite imagery of Mangkhut at around 2 a.m. on 16 September 2018



2023年9月1日上午2時左右 蘇拉的衞星圖像 Satellite imagery of Saola at around 2 a.m. on 1 September 2023



2023年10月7日上午2時左右 小犬的衞星圖像 Satellite imagery of Koinu at around 2 a.m. on 7 October 2023

圖 2.2.3c

熱帶氣旋山竹(左)、蘇拉(中)及小犬(右)的紅外線衛星圖像。

Figure 2.2.3c

Infra-red satellite imageries of tropical cyclones Mangkhut (left), Saola (middle) and Koinu (right).

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imageries were originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency.]

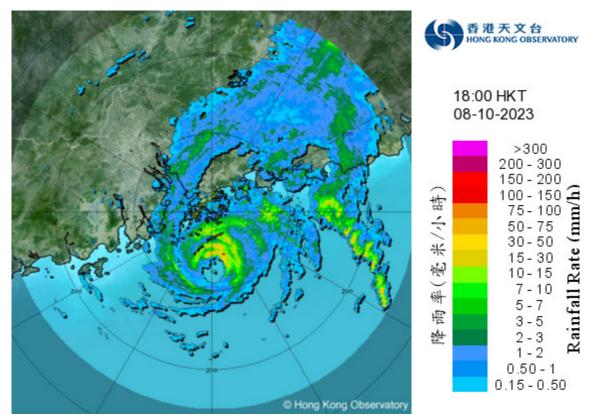


圖 2.2.4a 二零二三年十月八日下午 6 時 00 分的雷達回波圖像,受小犬的眼壁影響,位於香港以南的黃茅洲之風速在短時間內急劇上升,錄得高達每小時 120 公里的颶風風力。

Figure 2.2.4a Image of radar echoes captured at 6:00 p.m. on 8 October 2023. Affected by the eyewall of Koinu, wind speed recorded at Huangmaozhou over the south of Hong Kong increased sharply within a short period of time, reaching hurricane force winds up to 120 km/h.

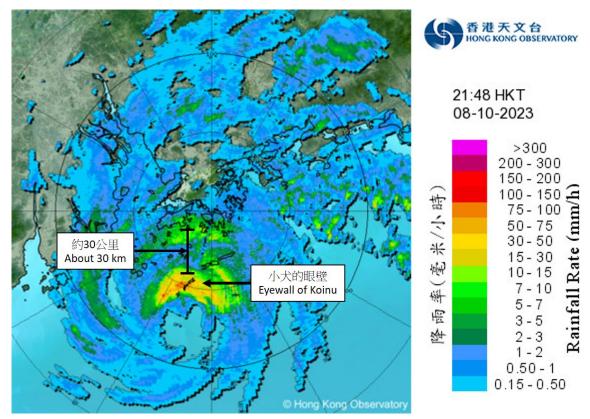


圖 2.2.4b 二零二三年十月八日晚上 9 時 48 分的雷達回波圖像。當時小犬在香港 以南近距離掠過,其緊密及風力達颶風程度的眼壁距離長洲只有約 30 公里。同時,與小犬相關的強雨帶亦影響本港。

Figure 2.2.4b Image of radar echoes captured at 9:48 p.m. on 8 October 2023 when Koinu passed closely south of Hong Kong. Its tight eyewall, with winds reaching hurricane force, was only about 30 kilometers away from Cheung Chau. Meanwhile, intense rainbands associated with Koinu was also affecting Hong Kong.

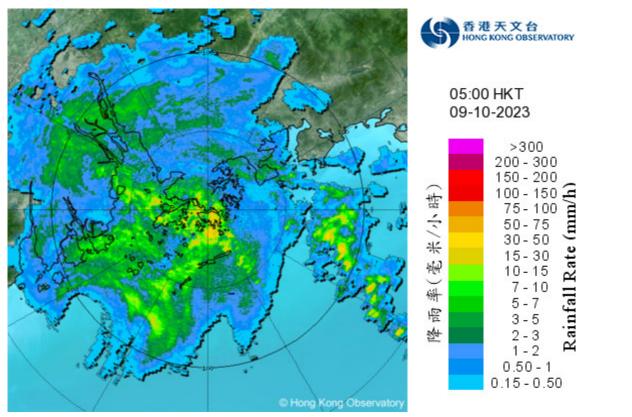


圖 2.2.4c 二零二三年十月九日上午 5 時的雷達回波圖像。與小犬相關的強雨帶 正影響本港,當時黑色暴雨警告信號正生效。

Figure 2.2.4c Image of radar echoes captured at 5:00 a.m. on 9 October 2023 when intense rainbands associated with Koinu was affecting Hong Kong. The Black Rainstorm Warning was in force at that time.

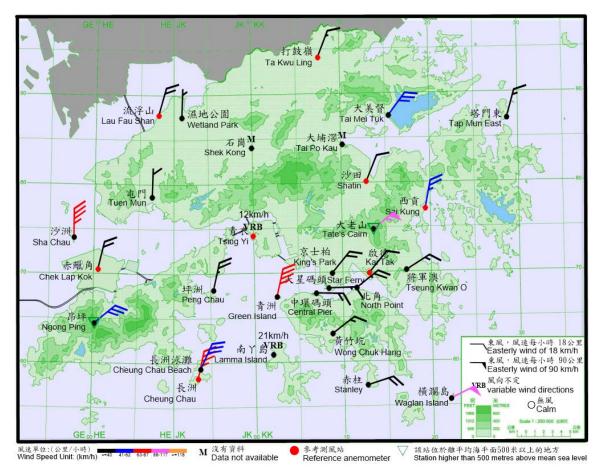


圖 2.2.5a 二零二三年十月八日晚上7時香港各站錄得的十分鐘平均風向和風速。 當時本港普遍吹北至東北風,長洲、青洲及沙洲吹烈風,而橫瀾島及大 老山的風力更達暴風程度。

Figure 2.2.5a 10-minute mean wind direction and speed recorded at various stations in Hong Kong at 7:00 p.m. on 8 October 2023. Local winds were generally north to northeasterlies, with gale winds prevailing at Cheung Chau, Green Island and Sha Chau at the time. Winds at Waglan Island and Tate's Cairn even reached storm force.

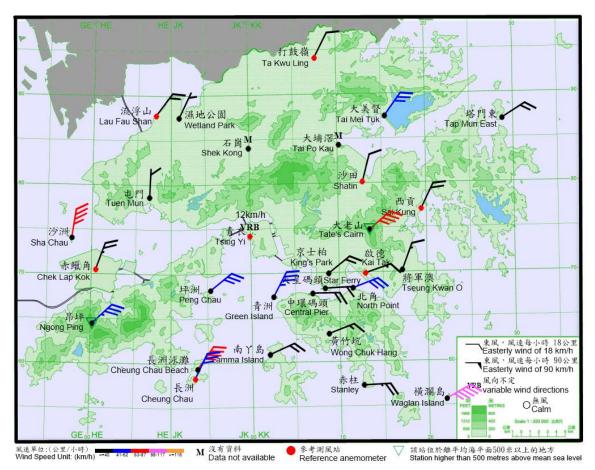


圖 2.2.5b 二零二三年十月八日晚上 8 時 30 分香港各站錄得的十分鐘平均風向 和風速。當時本港普遍吹東北風。長洲泳灘、沙洲及大老山吹烈風,而 橫瀾島的風力更達暴風程度。

Figure 2.2.5b 10-minute mean wind direction and speed recorded at various stations in Hong Kong at 8:30 p.m. on 8 October 2023. Local winds were generally northeasterlies, with gale winds prevailing at Cheung Chau Beach, Sha Chau and Tate's Cairn at the time. Winds at Waglan Island even reached storm force.

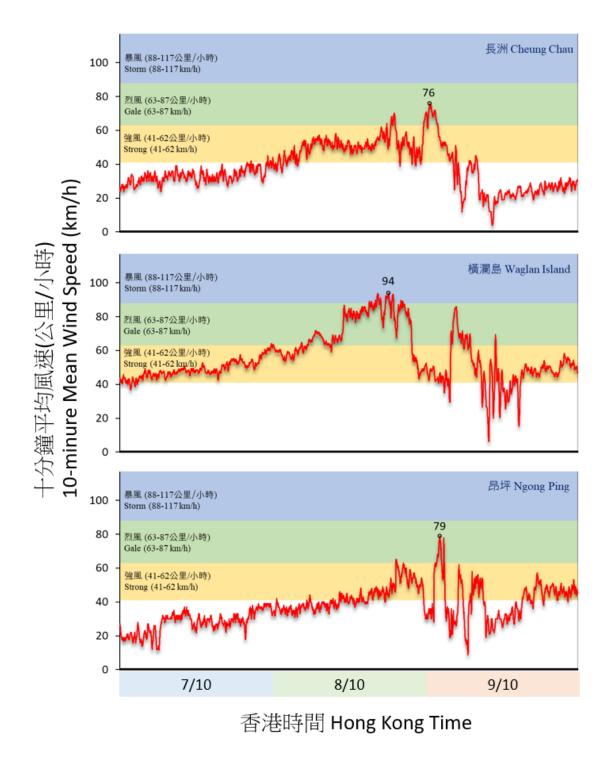
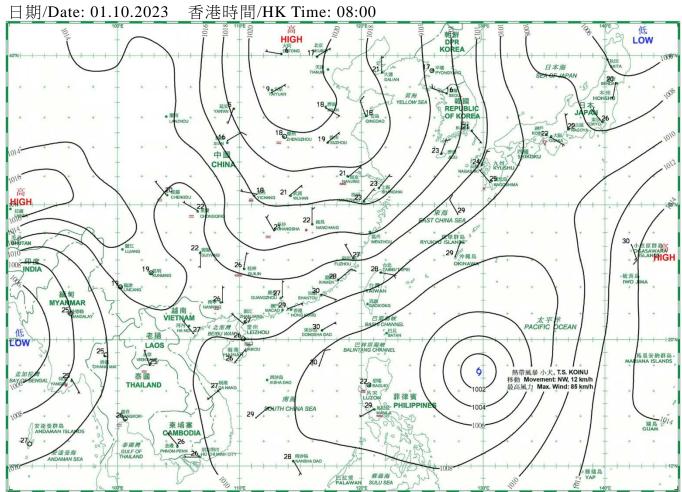
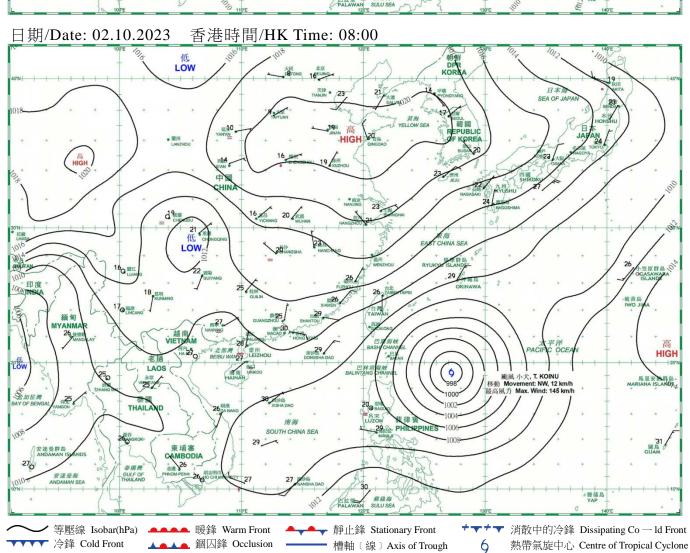


圖 2.2.6 二零二三年十月七日至九日的長洲、横瀾島及昂坪錄得的十分鐘平均 風速。

Figure 2.2.6 Traces of 10-minute mean wind speed recorded at Cheung Chau, Waglan Island and Ngong Ping on 7 – 9 October 2023.





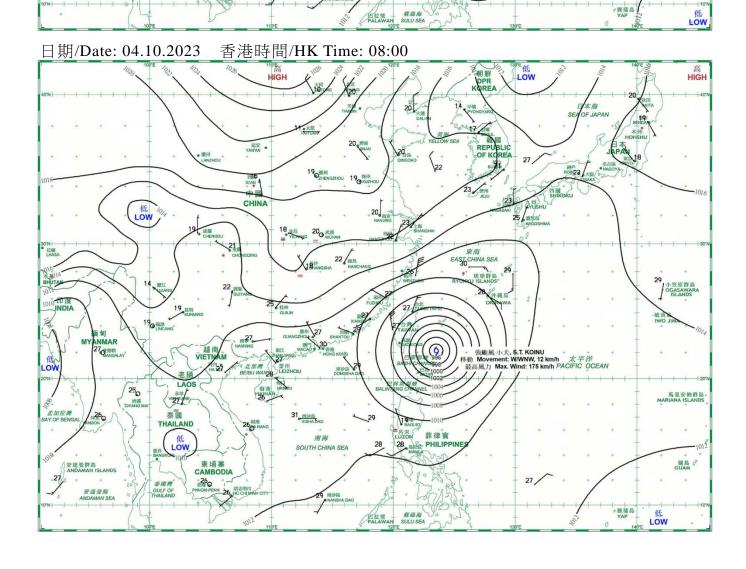
日期/Date: 03.10.2023 香港時間/HK Time: 08:00 低 LOW 高 HIGH REPUBLIC OF KOREA 21 100 M 低 LOW 低 LOW^N 東海 琉球群島 J ISLANDS® 小笠原群島¹⁰14 OGASAWARA ISLANDS (0) LAOS VIZE IN 泰國 THAILAND · 西沙岛 XISHA D 菲律賓1008 PHILIPPINES

關島 ? GUAM

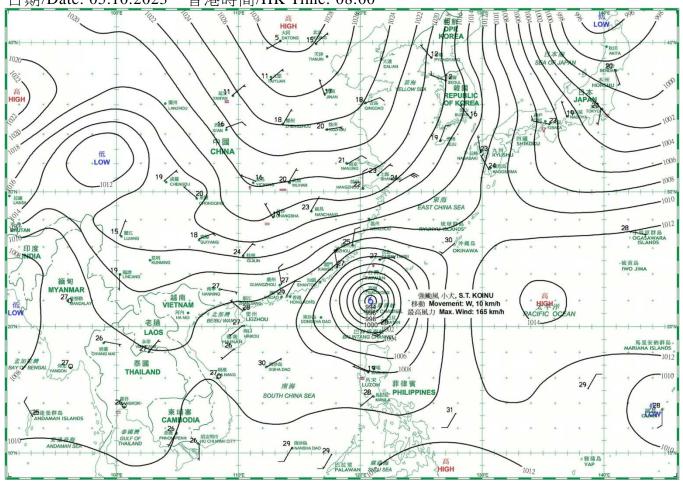
SOUTH CHINA SEA

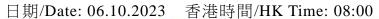
柬埔寨 CAMBODIA

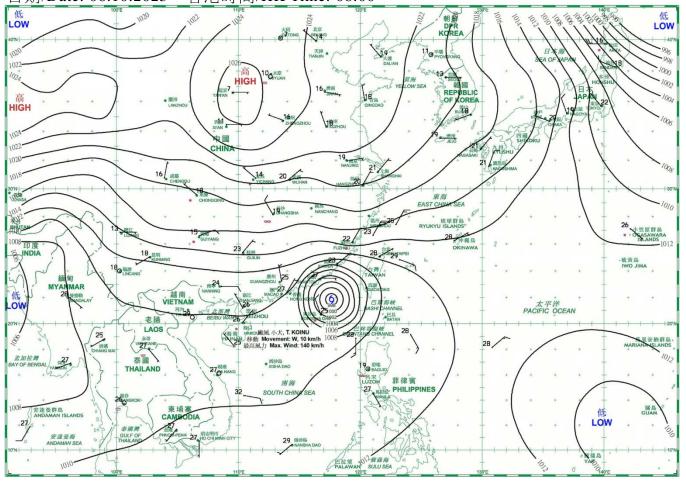
安達曼海 ANDAMAN SEA



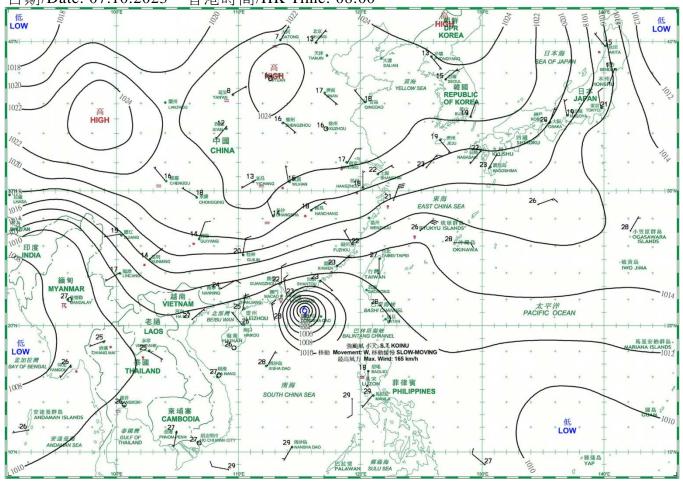
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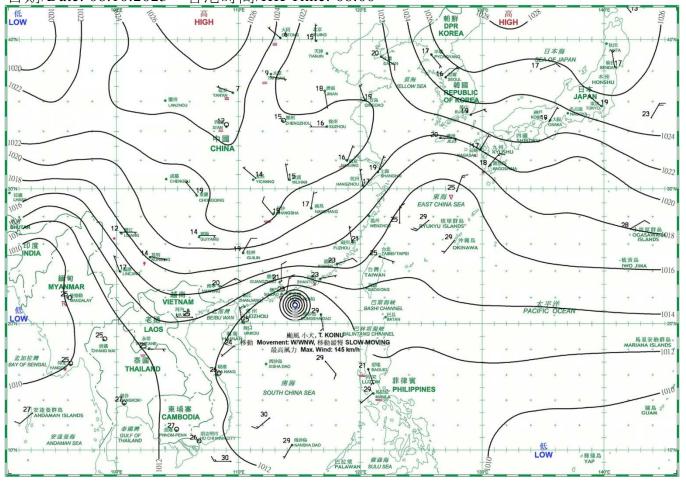




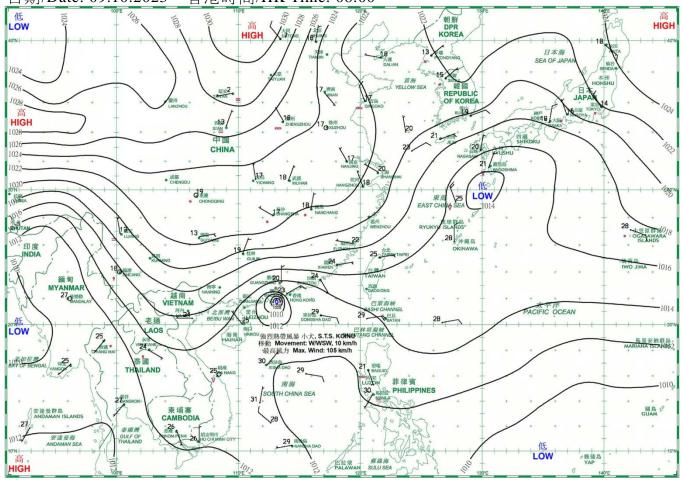
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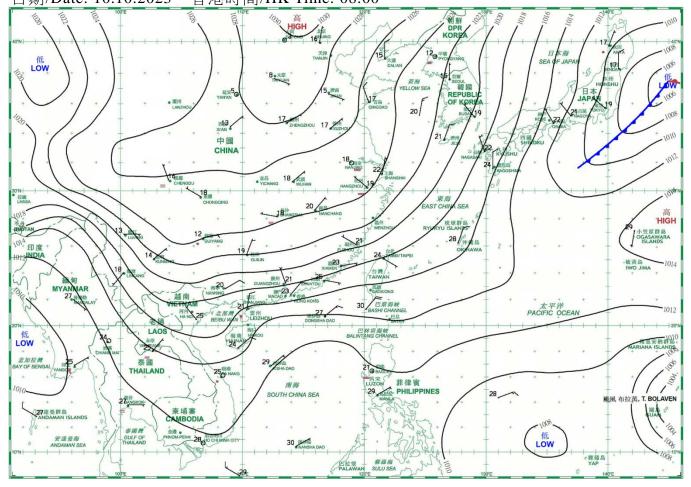
日期/Date: 08.10.2023 香港時間/HK Time: 08:00



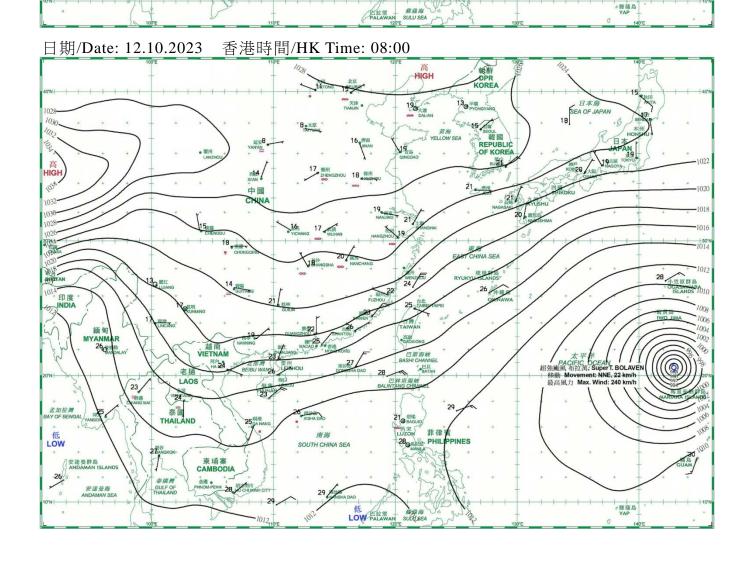
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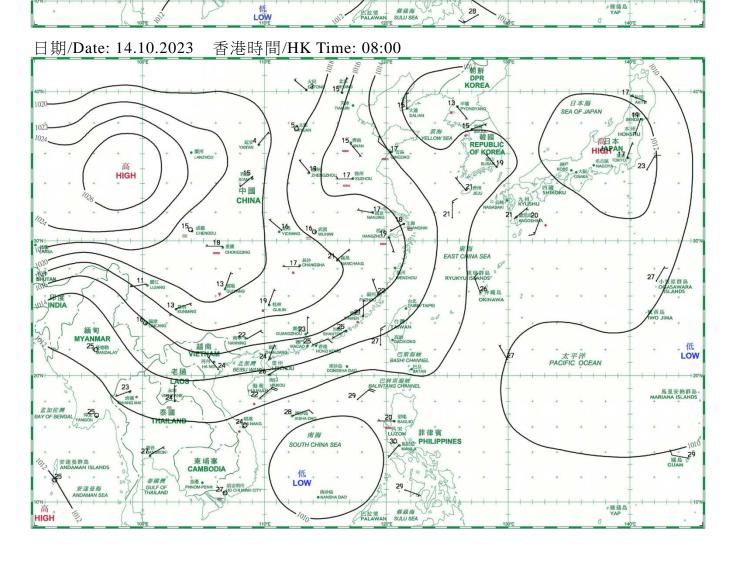
日期/Date: 10.10.2023 香港時間/HK Time: 08:00



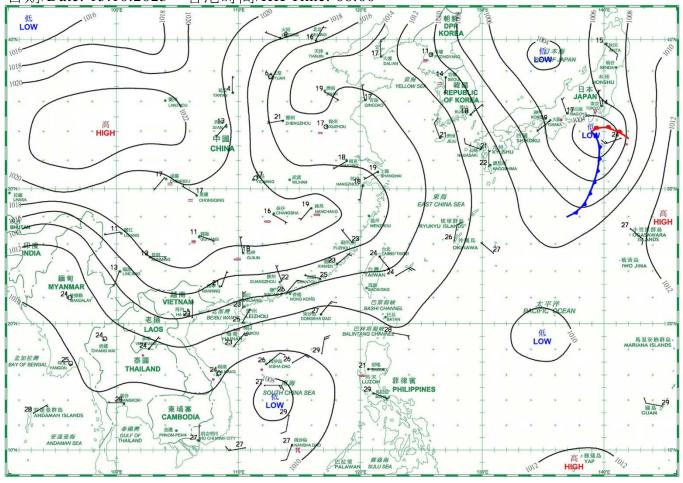
日期/Date: 11.10.2023 香港時間/HK Time: 08:00 大照高 HIGH 相似 18 16 新國 SEOUL 韓國 高 HIGH dinan KORE 14_{0岁HEN} онои 15 жизн CHINA 低+ LOW 16人 _{級郡} 15 17 武湖 拉爾 LHAS BHUTAN 27 1008 太平洋 PACIFIC OCEAN 1006 HA 24 巴林坦海峡 BALINTANG CHANNEL 孟加拉灣 泰國 THAILAND 29 XISHA D 20 母塩 BAG 超強颱風 布拉萬, SuperT. BOLAVEN 移動 Movement: NW/NNW, 14 km/h 最高風力 Max. Wind: 185 km/h 低 LOW 菲律賓 PHILIPPINES 柬埔寨 AMBODIA

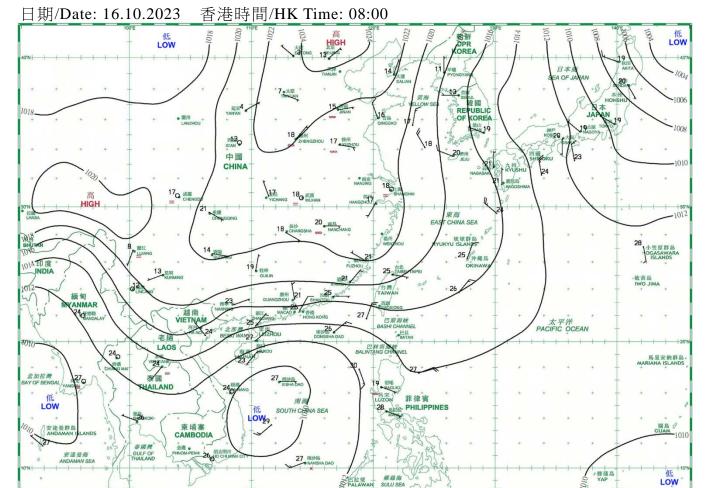


日期/Date: 13.10.2023 香港時間/HK Time: 08:00

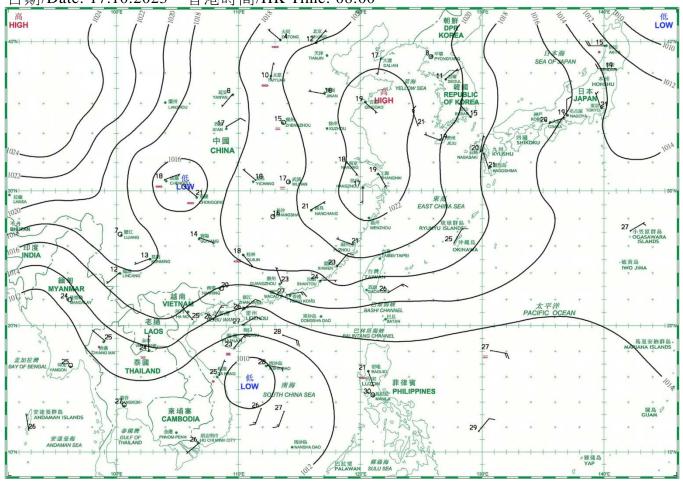


日期/Date: 15.10.2023 香港時間/HK Time: 08:00

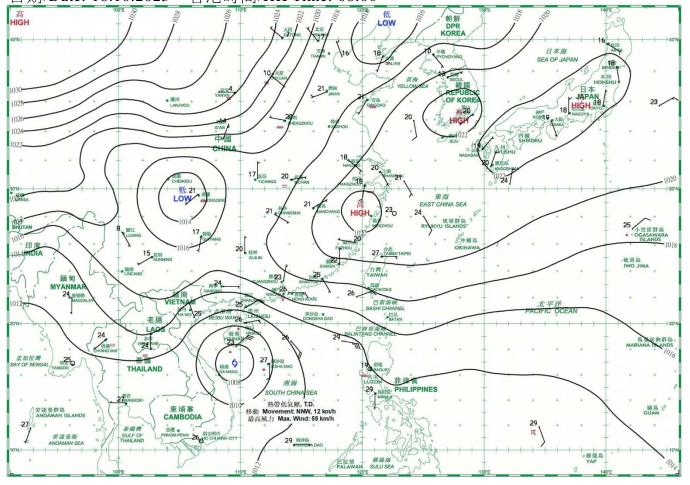




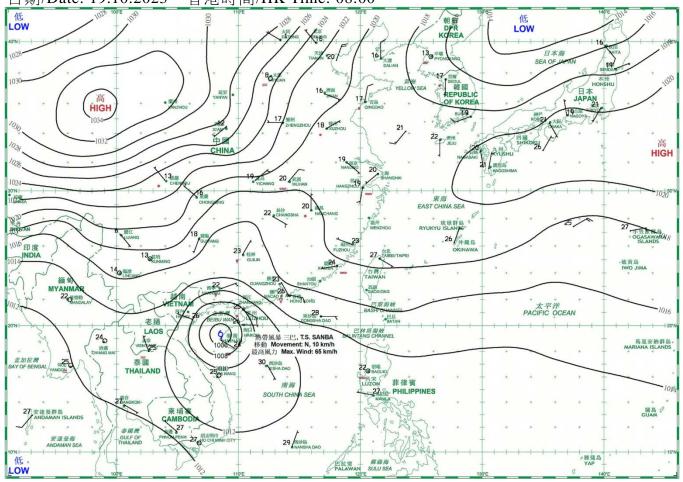
日期/Date: 17.10.2023 香港時間/HK Time: 08:00



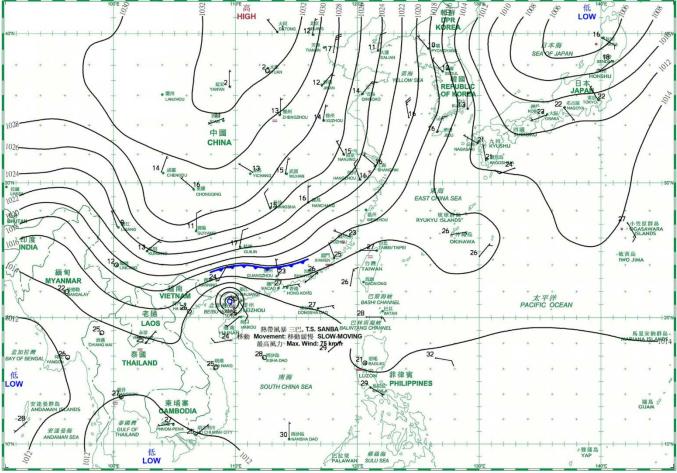
日期/Date: 18.10.2023 香港時間/HK Time: 08:00

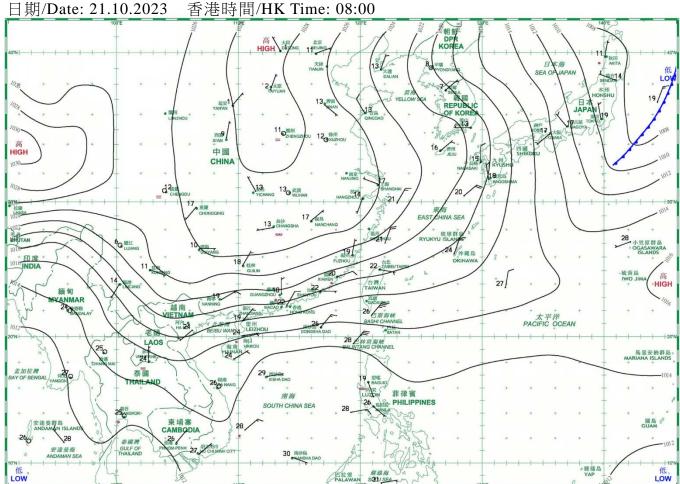


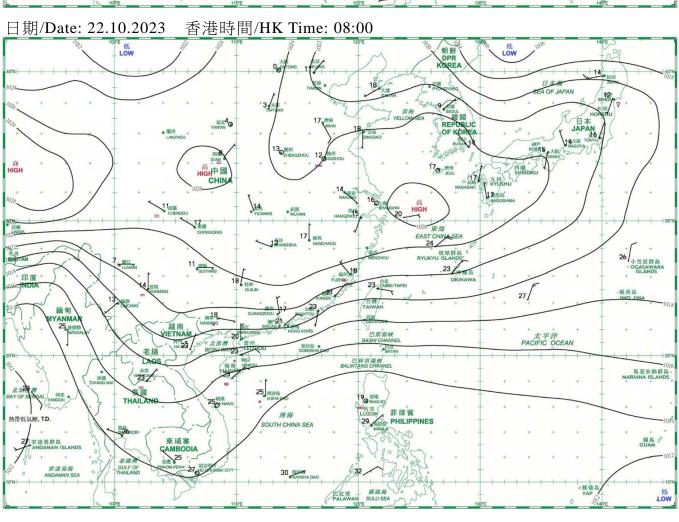
日期/Date: 19.10.2023 香港時間/HK Time: 08:00



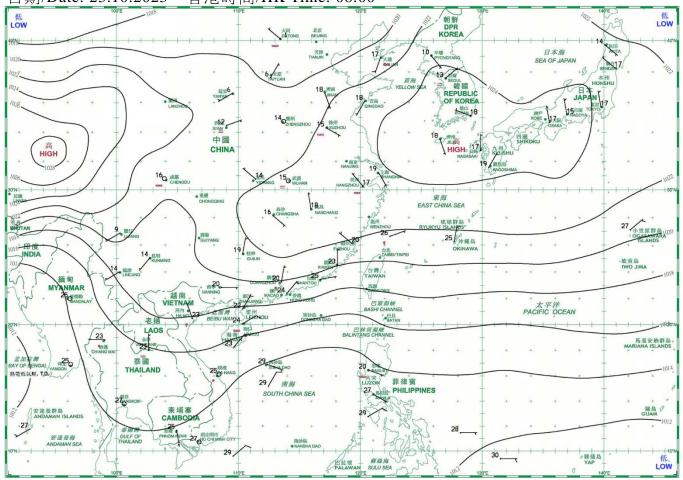




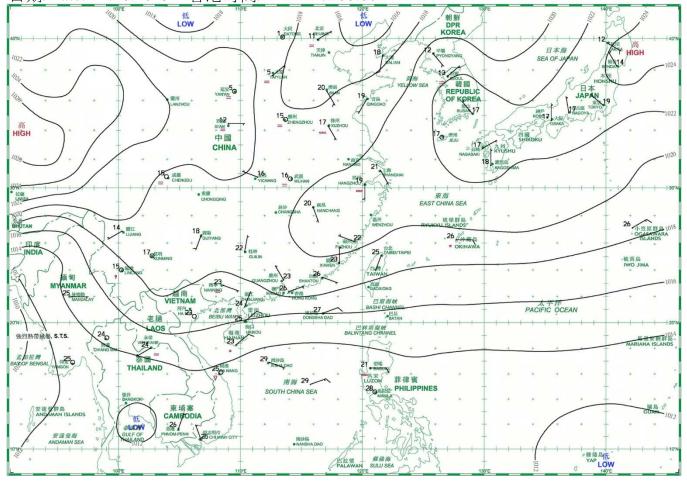




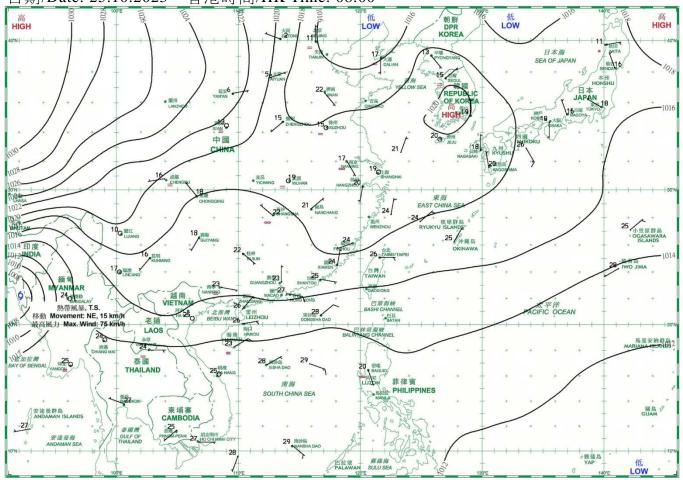
日期/Date: 23.10.2023 香港時間/HK Time: 08:00

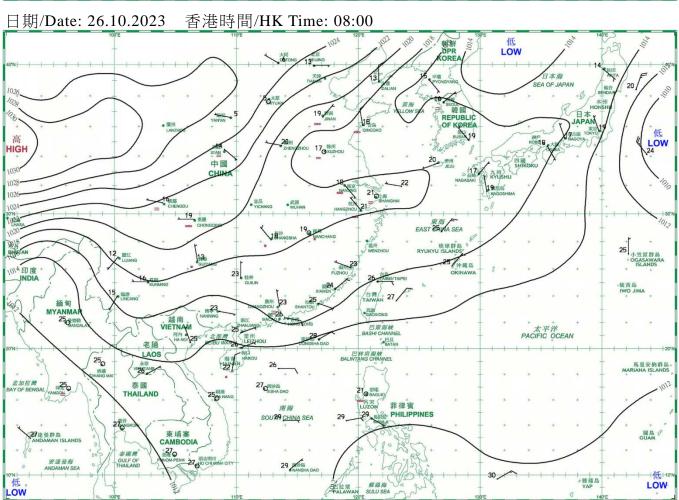




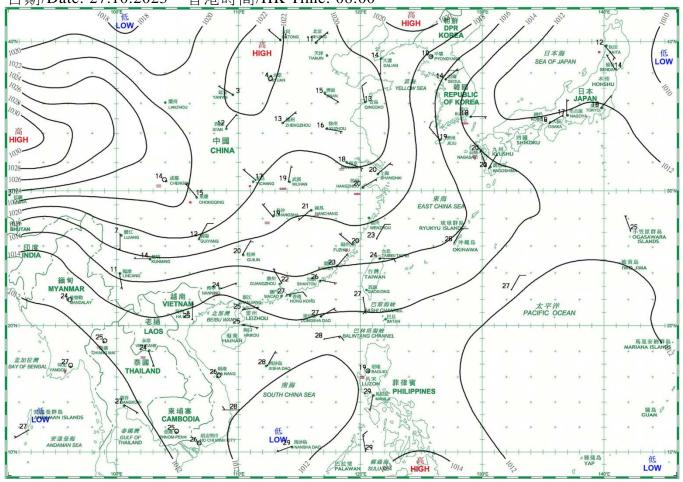


日期/Date: 25.10.2023 香港時間/HK Time: 08:00

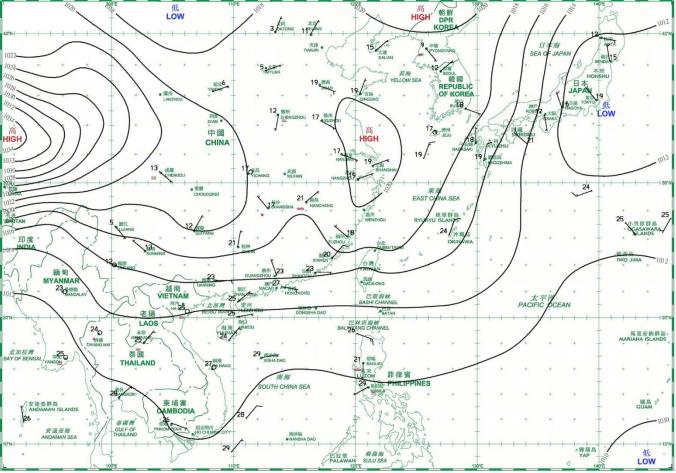




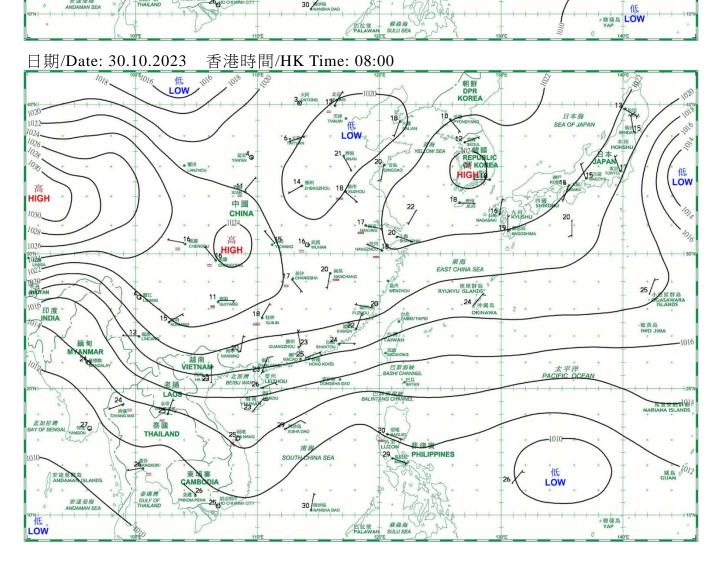
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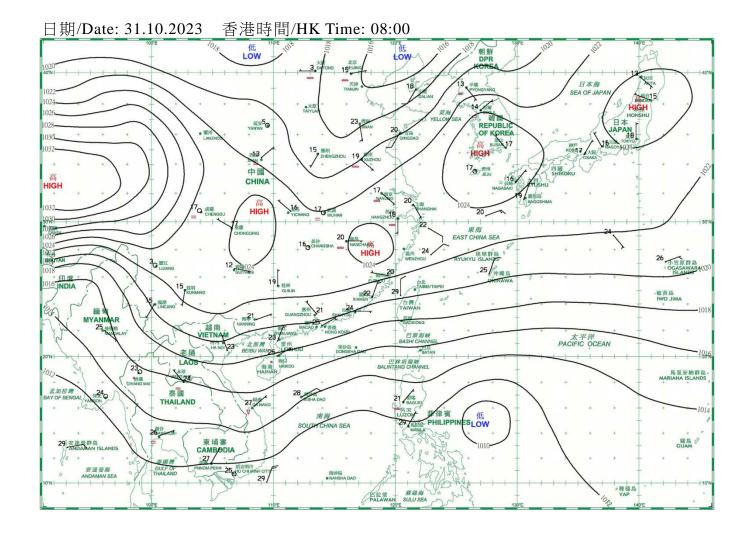






日期/Date: 29.10.2023 香港時間/HK Time: 08:00 朝鮮 高 DPR HIGH KOREA REPUBLIC OF KOREA ·低 LOW 13_{0%州} 1032 XIAV 中國 GASAKI GASAKI HIGH CHINA 1012 15 成都 CHI 18_{0 武統} 境球群岛 RYUKYU ISLANDS® 25 沖縄島 \$0 13 是明 KUNMI 23 4 LINCA 緬甸 GAOX 巴斯海峡 BASHI CHANA 東記記 / BATAN 240 VIENTANE 泰國 29 NISHA DAG 20 智塔 BAGI 菲律賓 PHILIPPINI 南海 安達曼群島 ANDAMAN ISLANDS 柬埔寨 CAMBODIA + 27 + 一 安達曼海 ANDAMAN SEA 30 NANS





4.1.1 二零二三年十月香港氣象觀測摘錄(一)

4.1.1 Extract of Meteorological Observations in Hong Kong (Part 1), October 2023

日 期 Date	平均氣壓 Mean Pressure	氣 溫 Air Temperature			平均 露點溫度	平均 相對濕度	平均雲量 Mean	總雨量			
		最高 Maximum	平均 Mean	最低 Minimum	Mean Dew Point Temperature	Mean Relative Humidity	Amount of Cloud	Total Rainfall			
十月 October	百帕斯卡 hPa	°C	°C	°C	°C	%	%	毫米 mm			
1	1009.8	34.0	30.0	28.0	25.4	77	68	-			
2	1011.3	32.3	29.5	27.9	24.7	76	64	0.4			
3	1010.6	31.4	29.3	27.7	25.1	78	61	Tr			
4	1009.0	34.6	30.8	28.3	25.1	73	74	-			
5	1007.3	34.1	30.5	28.5	21.4	58	82	-			
6	1008.3	32.2	28.3	26.7	20.3	62	88	Tr			
7	1008.1	27.2	25.1	23.5	20.2	74	88	1.9			
8	1008.1	25.1	24.2	22.7	21.9	87	95	92.2			
9	1013.2	25.0	24.5	23.4	23.4	94	100	369.7			
10	1015.6	26.9	25.3	23.8	22.1	83	91	2.3			
11	1016.9	29.2	25.6	23.7	20.7	75	83	-			
12	1017.6	29.2	25.7	23.5	20.3	72	79	-			
13	1015.5	30.2	26.7	24.8	20.0	67	81	-			
14	1013.2	30.0	26.6	24.7	19.6	66	70	-			
15	1013.3	29.9	26.9	25.1	21.4	72	86	0.1			
16	1014.9	28.9	26.5	25.4	20.6	70	88	-			
17	1015.4	28.2	25.8	24.5	17.7	61	88	Tr			
18	1015.2	25.4	24.6	23.4	21.8	85	95	38.3			
19	1014.7	26.0	25.3	24.6	23.7	91	96	27.9			
20	1015.2	27.6	25.9	24.6	22.6	82	88	0.2			
21	1018.4	25.4	23.3	22.0	18.8	76	88	Tr			
22	1018.8	27.8	24.5	22.4	18.8	71	88	Tr			
23	1017.4	29.4	26.0	23.8	21.5	77	74	Tr			
24	1016.3	30.1	26.8	24.8	22.2	76	50	-			
25	1015.5	29.7	26.6	25.3	22.8	80	57	-			
26	1014.6	29.2	26.2	24.8	22.1	78	59	-			
27	1014.0	29.6	26.6	24.9	23.0	81	74	-			
28	1014.8	27.7	25.8	24.2	23.1	85	87	9.5			
29	1016.1	27.1	25.3	24.1	21.3	79	84	3.5			
30	1017.1	29.3	26.1	24.6	21.7	77	73	Tr			
31	1018.4	28.6	25.8	24.1	19.9	70	54	-			
平均/總值 Mean/Total	1014.0	29.1	26.4	24.8	21.7	76	79	546.0			
正常* Normal*	1014.0	28.1	25.7	23.9	20.2	73	58	120.3			
觀測站 Station	天文台 Hong Kong Observatory										

天文台於十月五日 14 時 54 分錄得本月最低氣壓 1005.1 百帕斯卡。

 $The \ minimum \ pressure \ recorded \ at \ the \ Hong \ Kong \ Observatory \ was \ 1005.1 \ hectopascals \ at \ 1454 \ HKT \ on \ 5 \ October.$

天文台於十月四日 12 時 59 分錄得本月最高氣溫 34.6°C。

The maximum air temperature recorded at the Hong Kong Observatory was 34.6 $^{\rm o}$ C at 1259 HKT on 4 October.

天文台於十月二十一日 20 時 8 分錄得本月最低氣溫 22.0 ° C $^{\circ}$

The minimum air temperature recorded at the Hong Kong Observatory was 22.0 $^{\rm o}$ C at 2008 HKT on 21 October.

天文台於十月九日 2 時 7 分錄得本月最高1分鐘平均降雨率 123 毫米/小時。

 $The \ maximum \ 1-minute \ mean \ rainfall \ rate \ recorded \ at \ the \ Hong \ Kong \ Observatory \ was \ 123 \ millimetres \ per \ hour \ at \ 0207 \ HKT \ on \ 9 \ October.$

^{* 1991-2020} 氣候平均值 (除特別列明外) (https://www.hko.gov.hk/tc/cis/normal/1991_2020/normals.htm)

^{* 1991-2020} Climatological normal, unless otherwise specified (https://www.hko.gov.hk/en/cis/normal/1991_2020/normals.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 二零二三年十月香港氣象觀測摘錄(二)

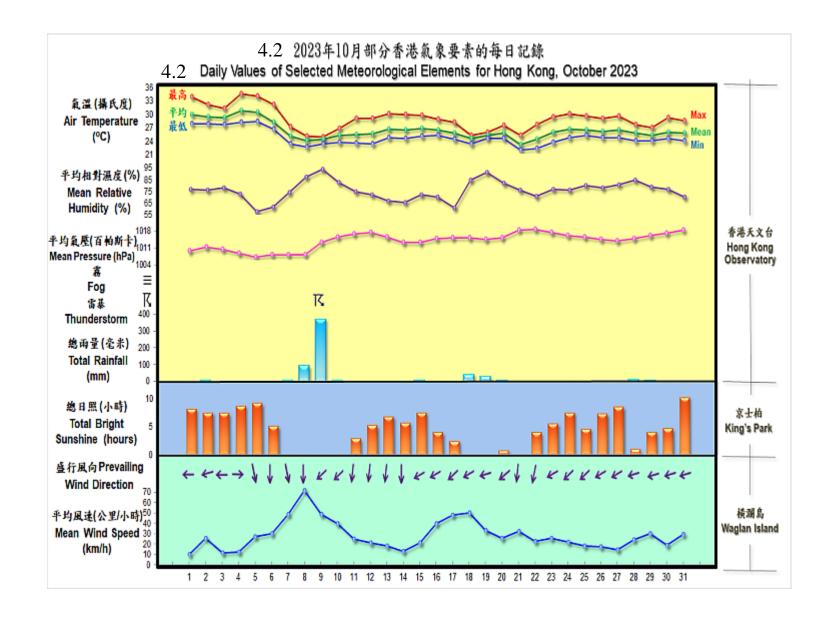
4.1.2 Extract of Meteorological Observations in Hong Kong (Part 2), October 2023

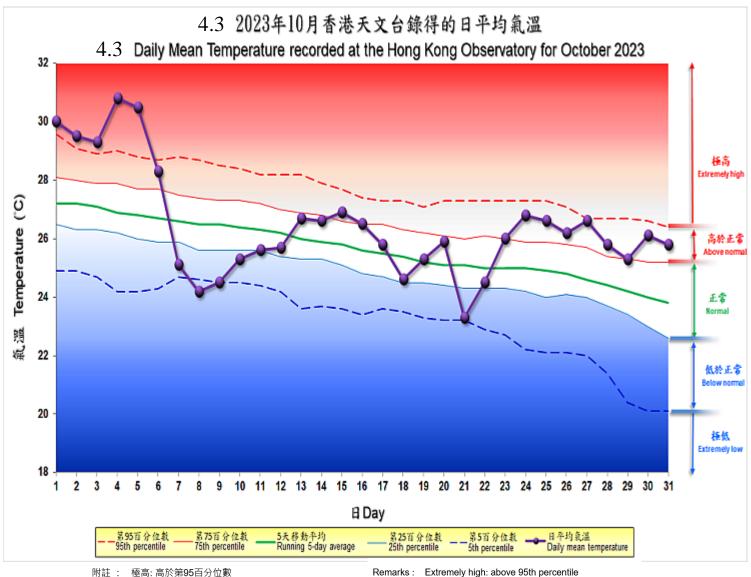
日期 Date	出現低能見度的時數# Number of hours of Reduced Visibility#	總日照 Total Bright Sunshine	每日太陽總輻射 Daily Global Solar Radiation	總蒸發量 Total Evaporation	盛行風向 Prevailing Wind Direction	平均風速 Mean Wind Speed		
十月 October	小時 hours	小時 hours	兆焦耳/米 ² MJ/m ²	毫米 mm	度 degrees	公里/小時 km/h		
1	0	8.2	20.89	4.8	090	10.5		
2	0	7.5	18.34	4.1	080	26.1		
3	0	7.4	16.42	3.6	090	11.5		
4	0	8.7	18.05	5.1	270	12.8		
5	0	9.2	19.10	6.3	350	27.2		
6	0	5.1	16.91	4.9	360	30.2		
7	0	-	4.26	1.6	350	48.8		
8	0	-	4.56	0.0	360	71.3		
9	0	-	1.37	0.1	060	48.3		
10	0	-	6.41	2.5	060	39.7		
11	0	2.9	12.47	3.1	010	25.3		
12	0	5.2	12.53	3.6	010	21.0		
13	0	6.8	16.26	4.0	010	18.7		
14	0	5.7	15.41	3.4	360	13.3		
15	0	7.5	16.15	4.1	070	21.6		
16	0	4.0	11.23	4.5	070	39.6		
17	0	2.4	9.60	3.4	060	47.7		
18	0	_	2.22	0.0	070	50.3		
19	0	_	1.55	0.6	080	32.8		
20	0	0.8	5.92	2.5	060	25.9		
21	0	_	5.54	2.1	010	32.1		
22	0	4.0	13.80	2.6	020	22.9		
23	0	5.6	13.97	2.7	070	25.5		
24	0	7.5	17.65	3.2	060	22.2		
25	0	4.6	11.37	2.4	060	18.7		
26	0	7.3	16.11	2.8	070	17.3		
27	0	8.5	18.96	3.0	070	14.5		
28	0	1.0	8.05	1.8	080	24.4		
29	0	4.1	12.40	2.9	080	30.0		
30	0	4.7	12.84	3.0	080	19.3		
31	0	10.2	19.48	4.0	080	29.5		
平均/總值 Mean/Total	0	138.9	12.25	92.7	070	28.4		
正常* Normal*	[107.2] §	197.8	14.52	122.6	080	26.3		
觀測站 Station	觀測站 香港國際機場 Hong Kong		京士柏 King's Park			横瀾島^ Waglan Island^		

横瀾島於十月八日 16 時 20 分錄得本月最高陣風 111 公里/小時,風向 040 度。

The maximum gust peak speed recorded at Waglan Island was 111 kilometres per hour from 040 degrees at 1620 HKT on 8 October.

- # 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 instrumented 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.
- ^ 如橫瀾島未能提供數據,則以長洲或其他鄰近氣象站的數據作補充,以計算盛行風向和平均風速。
- ^ In case the data are not available from Waglan Island, observations of Cheung Chau or other nearby weather stations will be incorporated in computing the Prevailing Wind Direction and Mean Wind Speed.
- * 1991-2020 氣候平均值 (除特別列明外) (https://www.hko.gov.hk/tc/cis/normal/1991_2020/normals.htm)
- * 1991-2020 Climatological normal, unless otherwise specified (https://www.hko.gov.hk/en/cis/normal/1991_2020/normals.htm)
- § 1997-2022 平均值
- § 1997-2022 Mean value





高於正常: 介乎第5日万位數 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1991至 2020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 1991 to 2020