

A hot and rainy August

As the sea surface temperature over the northern part of the South China Sea was warmer than normal, August 2019 was hotter than usual in Hong Kong. The monthly mean temperature of 29.0 degrees was 0.4 degrees above the normal figure of 28.6 degrees. Moreover, the summer of this year from June to August was exceptionally hot. The mean minimum temperature of 27.2 degrees, mean temperature of 29.2 degrees and mean maximum temperature of 31.8 degrees were respectively the second, third and fourth highest on record for the same period. Due to the heavy rain brought by tropical cyclones Wipha and Bailu, the month was wetter than normal with the monthly total rainfall amounting to 596.4 millimetres, about 38 per cent above the normal figure of 432.2 millimetres. The accumulated rainfall recorded in the first eight months of the year was 2 034.3 millimetres, a surplus of 7 per cent compared to the normal figure of 1 905.5 millimetres for the same period.

After making an anti-clockwise loop around the northeastern coast of Hainan Island in the early morning of August 1, Tropical Storm Wipha tracked northwards in the morning and then moved westwards across the Leizhou Peninsula that night. Wipha moved across the coast of Guangxi and the vicinity of Beibu Wan on August 2 and weakened gradually. It made landfall over the coast of Guangxi and further weakened into an area of low pressure over the northern part of Vietnam on August 3.

Under the influence of Wipha, it was windy in Hong Kong with occasional gale force winds offshore and on high ground at first on August 1. Heavy squally showers and thunderstorms associated with the rainbands of Wipha brought more than 100 millimetres of rainfall to most parts of the territory on August 1 and 2, and rainfall even exceeded 150 millimetres over parts of Lantau Island in these two days.

Affected by upper-air disturbances, local weather remained showery on August 3. With the departure of the upper-air disturbances, showers abated gradually with sunny intervals the next day. Dominated by an anticyclone aloft, the weather became generally fine and very hot on August 5. A broad area of low pressure over the central part of the South China Sea brought some showers and isolated thunderstorms to the territory on August 6.

Over the western North Pacific, Super Typhoon Lekima moved northwestward across the sea areas to the east of Taiwan from August 7 to 9 and made landfall over eastern China on August 10. Under the influence of the outer subsiding air of Lekima, the weather of Hong Kong was very hot with haze from August 7 to 9. The high temperature also triggered thundery showers in the night of August 8. With plenty of sunshine, the maximum temperature at the Hong Kong Observatory soared to 35.1 degrees on August 9, the highest of the month.

With the prevalence of a southwesterly airstream, it was hot with a mixture of sunshine and thundery showers in Hong Kong from August 10 to 18.

The showers were particularly heavy on August 14 and August 17 with more than 30 millimetres of rainfall generally recorded over Hong Kong on both days. Under the influence of a trough of low pressure lingering over the northern part of the South China Sea, there were sunny periods and some showers in Hong Kong on August 19 and 20. With the departure and weakening of the trough of low pressure, local weather became generally fine and very hot apart from isolated showers on August 21 and 22. It was mainly cloudy with light winds, isolated heavy showers and thunderstorms on August 23.

Meanwhile, an area of low pressure to the east of the Philippines intensified into a tropical depression and was named Bailu on August 21. Bailu further intensified into a severe tropical storm on August 22 and moved generally northwestward across the western North Pacific. It skirted past the southern tip of Taiwan and entered the Taiwan Strait on August 24. Bailu made landfall over the coast of southeastern China on August 25 and weakened progressively into an area of low pressure over inland Guangdong.

Affected by the outer subsiding air of Bailu, it was generally fine and very hot with haze in Hong Kong on August 24. The outer rainbands associated with Bailu brought occasional heavy squally showers and thunderstorms to Hong Kong on August 25 and 26. More than 150 millimetres of rainfall were recorded over many places, and rainfall even exceeded 200 millimetres in the urban areas and parts of New Territories in these two days. During the incessant downpour in the early morning of August 26, the temperature at the Hong Kong Observatory dropped to a minimum of 22.9 degrees, the lowest of the month.

With the strengthening of an anticyclone over southeastern China, the showers eased off gradually on August 27 and the weather became mainly fine and very hot on August 28. Meanwhile, an area of low pressure developed into a tropical cyclone over the seas east to the Philippines on August 27 and was named Podul. It moved generally westward and entered the South China Sea on August 28. With Podul moving across the central part of the South China Sea towards the vicinity of the southern part of Hainan Island, local weather turned mainly cloudy and windier with a few showers and thunderstorms on August 29. Under the influence of the outer rainbands associated with Podul, local weather was unsettled with occasional showers and thunderstorms on August 30. A broad trough of low pressure over the south China coast continued to bring thundery showers to the territory on the last day of the month. Heavy showers in the morning brought more than 50 millimetres of rainfall to Sha Tin, Sai Kung and Tseung Kwan O.

Six tropical cyclones occurred over the South China Sea and the western North Pacific in August 2019.

Details of issuance and cancellation of various warnings/signals in August are summarised in Table 1. Monthly meteorological figures and departures from normal for August are tabulated in Table 2.