

The warmest October

Mainly attributable to the weaker northeast monsoon over southern China, October 2024 was much warmer than usual in Hong Kong. The monthly mean maximum temperature of 30.3 degrees, monthly mean temperature of 27.3 degrees and monthly mean minimum temperature of 25.4 degrees were 2.2 degrees, 1.6 degrees and 1.5 degrees respectively above their corresponding normals and all of them were the highest on record for October. There were three very hot days in the month, one of the highest on record for October. The month was also much drier than usual with a total rainfall of 11.3 millimetres, only about 9 per cent of the normal figure of 120.3 millimetres. The accumulated rainfall this year up to October was 2 115.6 millimetres, about 10 per cent lower than the normal figure of 2 363.1 millimetres for the same period.

Super Typhoon Krathon over the northeastern part of the South China Sea moved slowly towards the southern part of Taiwan on October 1 and 2. It weakened into a typhoon and made landfall over the coast of Gaoxiong on the afternoon of October 3. Krathon rapidly weakened into an area of low pressure over the southern part of Taiwan the next morning. Under the influence of the outer subsiding air of Krathon, it was mainly fine and very hot in Hong Kong on the first day of the month. The temperatures at the Observatory soared to a maximum of 34.2 degrees on that afternoon, the highest of the month and also the third-highest absolute maximum temperature for October. Moreover, the daily mean temperature of 30.9 degrees on the same day was the highest on record for October.

Meanwhile, a strong northeast monsoon gradually affected the coast of Guangdong on October 1, and local winds strengthened from the north in the afternoon. Under the influence of the monsoon, it was slightly cooler in the morning of October 2 and 3, and the weather was mainly fine and dry during the day. The weather remained mainly fine and dry during the day from October 4 to 8. With a band of clouds covering the coastal areas of Guangdong, the weather turned cloudier with a few light rain patches on October 9. While it was dry with sunny periods during the day on October 10, an easterly airstream set in at night and brought rainy weather to Hong Kong that night and the next morning. The rain was heavier on the morning of October 11, and more than 20 millimetres of rainfall were recorded over the eastern part of the territory. The weather turned dry with sunny intervals in the afternoon.

Under the influence of a dry easterly airstream, apart from a few rain patches on the morning of October 12, the weather was mainly fine and dry during the day from October 12 to 15. Affected by upper-air disturbances, the weather turned cloudier with a few showers from October 16 to 18. It was mainly fine with some haze on October 19. With light winds and plenty of sunshine, the maximum temperature recorded at the Observatory in the afternoon was 33.7 degrees, making it the latest very hot day of a year on record. Affected by an easterly airstream, there were a few light rain patches in the morning and sunny intervals during the day on October 20 and 21. With the moderation of the easterly airstream, the weather turned mainly

fine and dry on October 22.

Meanwhile, an area of low pressure over the seas east of the Philippines intensified into a tropical depression on October 21 and was later named Trami. It tracked northwestwards towards Luzon and intensified gradually on October 22 and 23. After moving across Luzon, Trami moved generally westwards across the central and northern parts of the South China Sea on October 25 and 26. It made landfall over the central part of Vietnam on the morning of October 27 and progressively weakened into an area of low pressure over the inland areas the next day.

Under the influence of a dry northeast monsoon, it was mainly fine and dry on October 23. With the strengthening of the monsoon, it was slightly cooler the next morning and the temperatures at the Observatory dropped to a minimum of 22.0 degrees, the lowest of the month. The weather was mainly fine and very dry during the day with the relative humidity over most parts of the territory once falling to about 30 per cent. While it was still mainly fine during the day on October 25, the weather turned cloudy at night with the approach of Trami. Under the combined effect of the northeast monsoon and Trami, the weather of Hong Kong was mainly cloudy with a few showers on October 26. Strong winds were also recorded over many places of the territory on that day. With Trami departing from Hong Kong, local winds moderated gradually at night and the next morning. With a band of clouds covering the coast of Guangdong, the weather remained mainly cloudy with a few light rain patches in the morning from October 27 to 29. Affected by a dry northeast monsoon, the weather turned fine and dry on the last two days of the month.

Five tropical cyclones occurred over the South China Sea and the western North Pacific in October 2024.

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